MITSUBISHI ELECTRIC

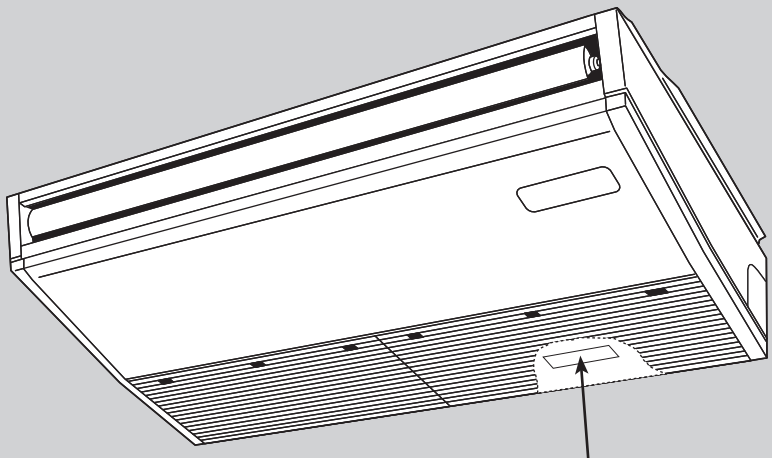
March 2024
No. OCH851

TECHNICAL & SERVICE MANUAL

Series PCFY Ceiling Suspended

Indoor unit [Model names]	[Service Ref.]
PCFY-WL40VKM-E	PCFY-WL40VKM-E
PCFY-WL40VKM-ET	PCFY-WL40VKM-ET
PCFY-WL63VKM-E	PCFY-WL63VKM-E
PCFY-WL63VKM-ET	PCFY-WL63VKM-ET
PCFY-WL80VKM-E	PCFY-WL80VKM-E
PCFY-WL80VKM-ET	PCFY-WL80VKM-ET
PCFY-WL100VKM-E	PCFY-WL100VKM-E
PCFY-WL100VKM-ET	PCFY-WL100VKM-ET

Note:
• This manual describes only service data of the indoor units.



INDOOR UNIT

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PARTS CATALOG (OCB851)

CITY MULTI

1 SAFETY PRECAUTION

Cautions for units utilizing refrigerant Water

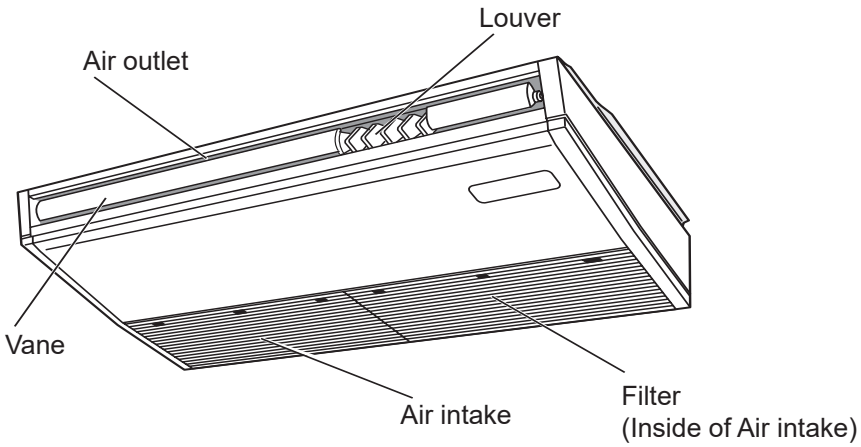
⚠ **CAUTION**

Do not use the existing water piping.
Store the piping materials indoors, and keep both ends of the pipes sealed until immediately before installation. Keep the joints wrapped in plastic bags. If dust or dirt enters the water circuit, it may damage the heat exchanger and cause water leakage.

Only use water.
Only use clean water as a refrigerant. The use of water outside the specification may damage the refrigerant circuit.

2 PART NAMES AND FUNCTIONS

2-1. INDOOR UNIT



3 SPECIFICATION

3-1. SPECIFICATIONS

Model				PCFY-WL40VKM-E/ET	PCFY-WL63VKM-E/ET	PCFY-WL80VKM-E/ET	PCFY-WL100VKM-E/ET
Power source				1-phase 220-240V 50Hz, 1-phase 220V 60Hz			
Cooling capacity (Nominal)		*1	kW	4.5	7.1	9.0	11.2
		*1	kcal/h	3,900	6,100	9,600	12,000
		*1	Btu/h	15,400	24,200	38,200	47,800
		*2	kcal/h	4,000	6,300	10,000	12,500
	Power input		kW	0.04	0.06	0.08	0.11
	Current input		A	0.34	0.52	0.69	0.95
Heating capacity (Nominal)		*3	kW	5.0	8.0	10.0	12.5
		*3	kcal/h	4,300	6,900	10,800	13,800
		*3	Btu/h	17,100	27,300	42,700	54,600
	Power input		kW	0.04	0.06	0.08	0.11
	Current input		A	0.34	0.52	0.69	0.95
External finish				MUNSELL (6.4Y 8.9/0.4)			
External dimensions H x W x D			mm	230×960×680	230×1280×680	230×1600×680	
			in.	9-1/16×37-13/16×26-3/4	9-1/16×50-3/8×26-3/4	9-1/16×63×26-3/4	
Net weight			kg (lb)	25 (55)	32 (71)	39 (86)	
Heat exchanger				Cross fin (Aluminum fin and copper tube)			
FAN	Type x quantity			Sirocco fan × 2	Sirocco fan × 3	Sirocco fan × 4	
	External static press.		Pa	0			
			mmH_2O	0			
	Motor type			DC motor			
	Motor output		kW	0.090	0.095	0.160	
	Driving mechanism			Direct-driven by motor			
	Airflow rate (Low-Mid2-Mid1-High)		m^3/min	10-11-12-13	15-17-19-21	22-23-25-27	22-25-28-31
			L/s	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
			cfm	353-388-424-459	494-530-565-636	742-847-918-989	742-847-953-1095
Noise level (Low-Mid2-Mid1-High) (measured in anechoic room)			dB <A>	32-35-37-39	34-37-40-43	39-40-42-44	39-42-45-47
Insulation material				Polyester sheet			
Air filter				PP honeycomb			
Protection device				Fuse			
Connectable outdoor unit				HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB/CMH-WM-V-A			
Water pipe dimensions	Water inlet		mm I.D.	20			
	Water outlet		mm I.D.	20			
Field drain pipe size			mm (in)	O.D. 26 (1)			
Standard attachment	Document Accessory			Installation Manual, Instruction Book			
Optional parts	High efficiency filter			PAC-SH88KF-E	PAC-SH89KF-E	PAC-SH90KF-E	
	Wireless remote controller kit			PAR-SL94B-E			
	Anti-allergy enzyme filter			PAC-SK48KF-E	PAC-SK49KF-E	PAC-SK50KF-E	
	V Blocking filter			PAC-SK55KF-E	PAC-SK56KF-E	PAC-SK57KF-E	
	Wired remote controller kit			PAR-41MAA			
	Valve kit			PAC-SK35VK-E			
		Lead Wire		PAC-SK40LW-E			
		Attachment plate		PAC-SK39AP-E			
Remarks	Installation			Details on foundation work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Note :

	*1 Nominal cooling conditions	*2 Nominal cooling conditions	*3 Nominal heating conditions
Indoor :	27°CDB/19°CWB (81°FDB/66°FWB)	27°CDB/19.5°CWB (81°FDB/67°FWB)	20°CDB (68°FDB)
Outdoor :	35°CDB (95°FDB)	35°CDB (95°FDB)	7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length :	7.5 m (24-9/16 ft)	5 m (16-3/8 ft)	7.5 m (24-9/16 ft)
Level difference :	0 m (0 ft)	0 m (0 ft)	0 m (0 ft)

* Nominal conditions *1, *3 are subject to JIS B8615-1.
* Due to continuing improvement, above specification may be subject to change without notice.

Unit converter

kcal/h = kW × 860
Btu/h = kW × 3,412
cfm = m^3/min × 35.31
lb = kg/0.4536

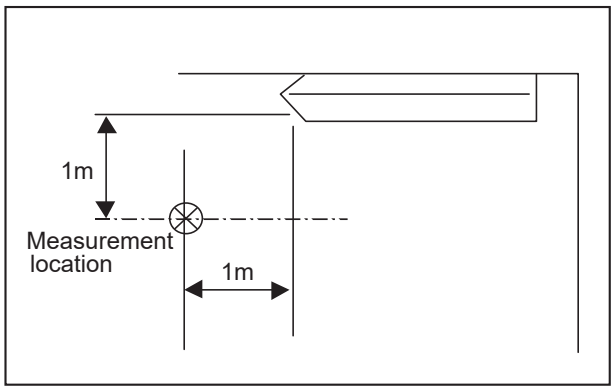
*Above specification data is subject to rounding variation.

3-2. ELECTRICAL PARTS SPECIFICATIONS

Service Ref. / Parts name	Symbol	PCFY-WL40VKM-E PCFY-WL40VKM-ET	PCFY-WL63VKM-E PCFY-WL63VKM-ET	PCFY-WL80VKM-E PCFY-WL100VKM-E PCFY-WL80VKM-ET PCFY-WL100VKM-ET
Room temperature thermistor	TH21	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ		
Inlet pipe thermistor	TH22	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ		
Outlet pipe thermistor	TH23	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ		
Fuse (Indoor controller board)	FUSE	250V 6.3A		
Fan motor	MF	8-pole OUTPUT 90W	8-pole OUTPUT 95W	8-pole OUTPUT 160W
Vane motor	MV	MSBPC20 DC12V 300Ω/phase		
Power supply terminal block	TB2	(L, N, ⏚) Rated to 330V 30A *		
Transmission terminal block	TB5	(M1, M2, S) Rated to 250V 20A *		
MA remote controller terminal block	TB15	(1, 2) Rated to 250V 10A *		

* Refer to WIRING DIAGRAM for the supplied voltage.

3-3. SOUND LEVEL



* Measured in anechoic room.

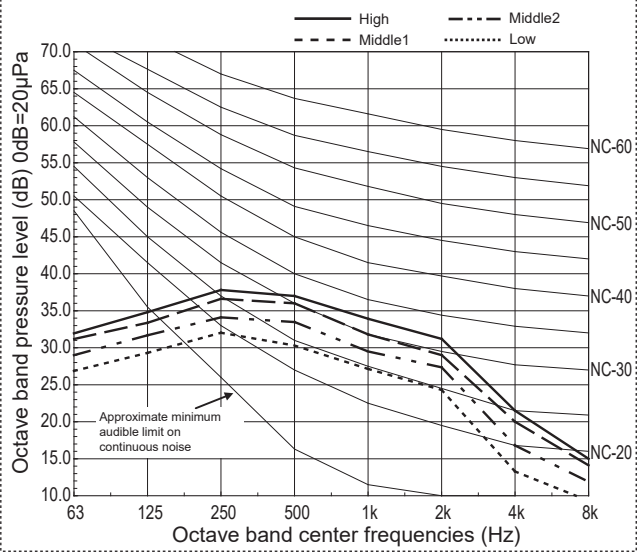
Sound level at anechoic room : Low-Mid2-Mid1-High

Service Ref.	Sound level dB (A)
PCFY-WL40VKM-E PCFY-WL40VKM-ET	32-35-37-39
PCFY-WL63VKM-E PCFY-WL63VKM-ET	34-37-40-43
PCFY-WL80VKM-E PCFY-WL80VKM-ET	39-40-42-44
PCFY-WL100VKM-E PCFY-WL100VKM-ET	39-42-45-47

3-4. NC CURVES

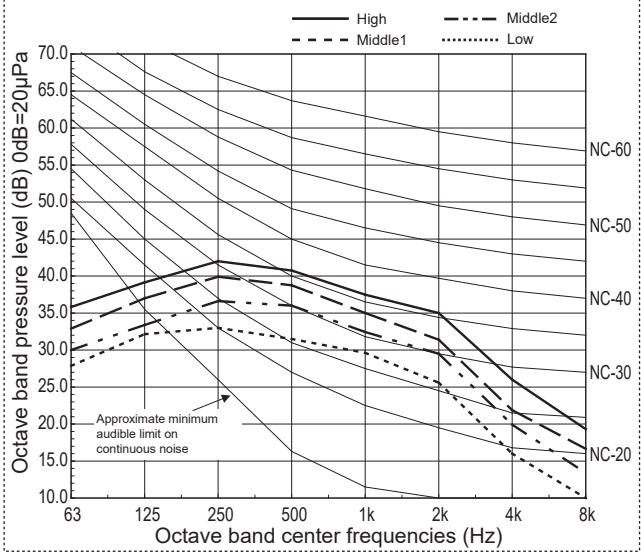
PCFY-WL40VKM-E
PCFY-WL40VKM-ET

External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



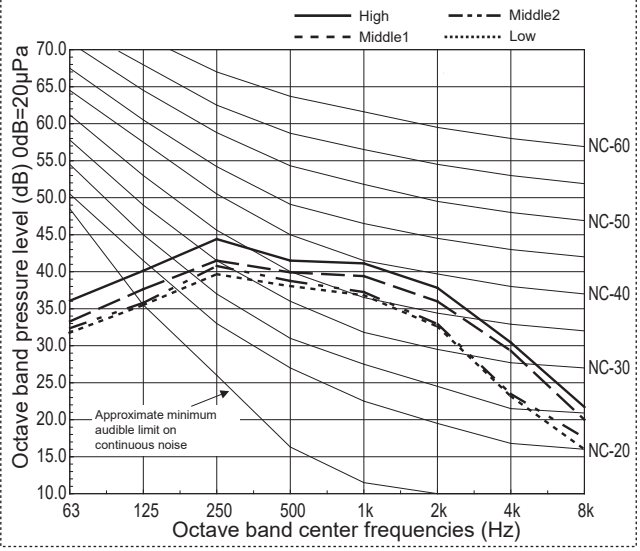
PCFY-WL63VKM-E
PCFY-WL63VKM-ET

External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



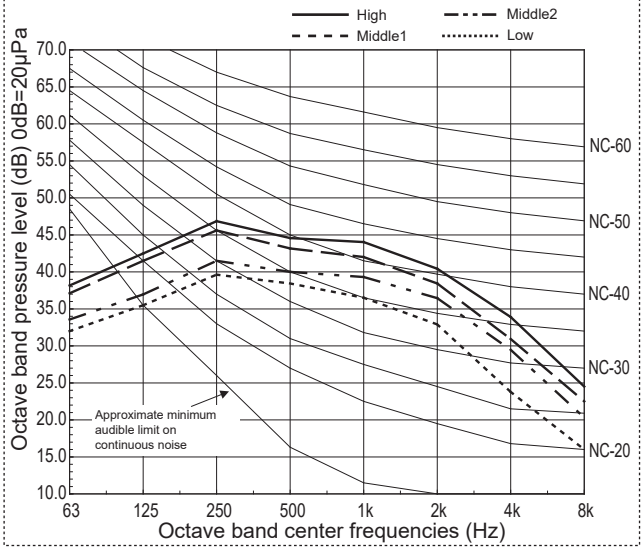
PCFY-WL80VKM-E
PCFY-WL80VKM-ET

External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



PCFY-WL100VKM-E
PCFY-WL100VKM-ET

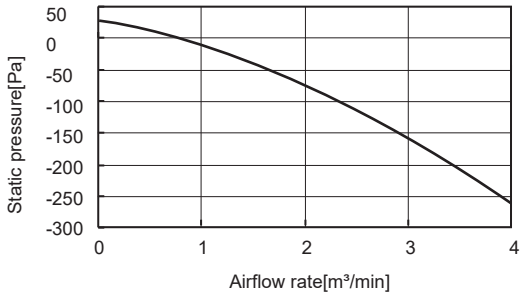
External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



3-5. FRESH AIR INTAKE AMOUNT & STATIC PRESSURE CHARACTERISTICS

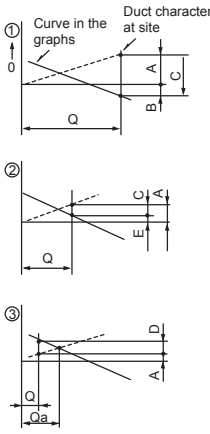
PCFY-WL40VKM-E
PCFY-WL40VKM-ET

PCFY-WL63VKM-E
PCFY-WL63VKM-ET



PCFY-WL80/100VKM-E
PCFY-WL80/100VKM-ET

How to read curves

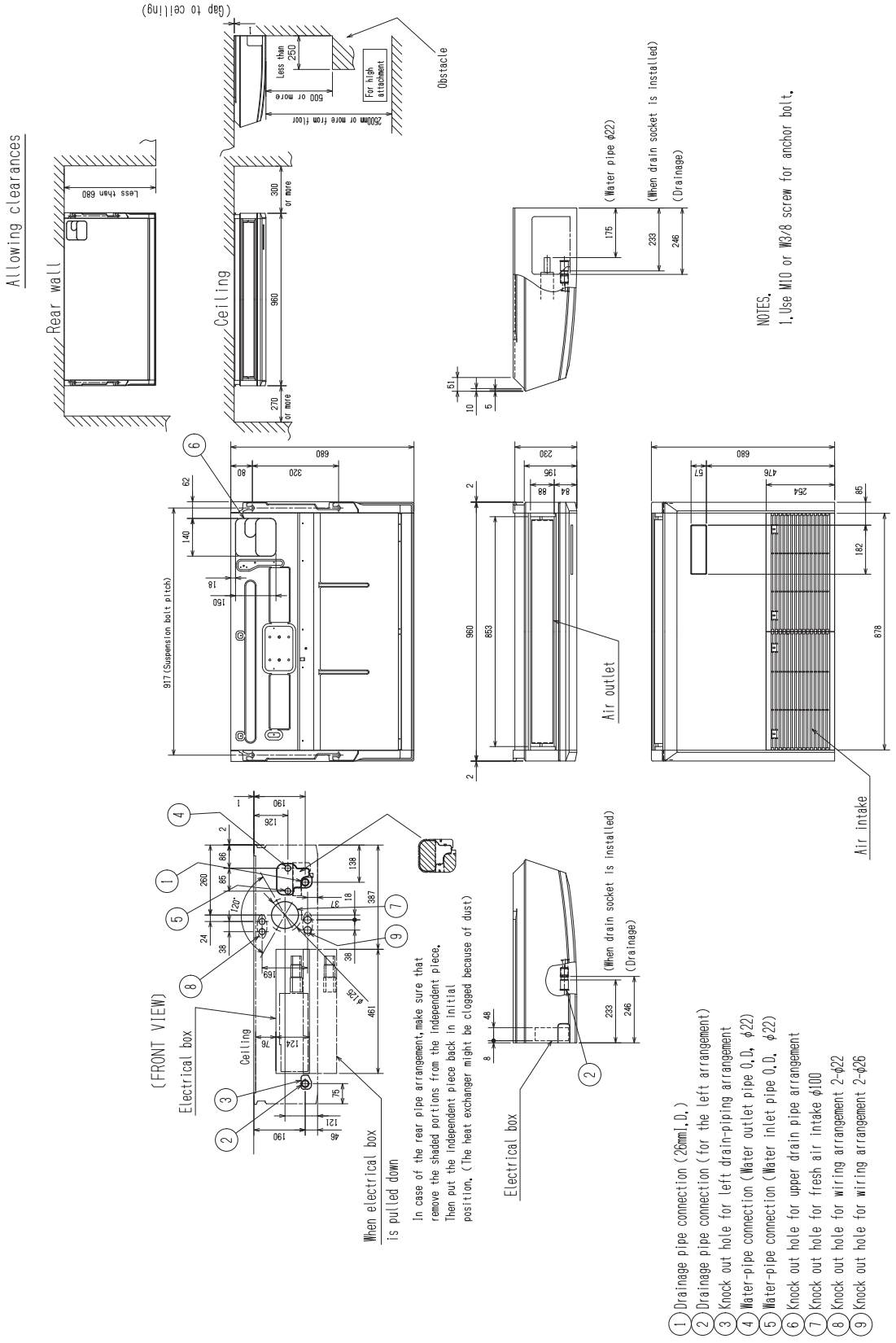


Q···Designed amount of fresh air intake <m³/min>
A···Static pressure loss of fresh air intake duct system with airflow amount Q <Pa>
B···Forced static pressure at air conditioner inlet with airflow amount Q <Pa>
C···Static pressure of booster fan with airflow amount Q <Pa>
D···Static pressure loss increase amount of fresh air intake duct system for airflow amount Q <Pa>
E···Static pressure of indoor unit with airflow amount Q <Pa>
Qa···Estimated amount of fresh air intake without D <m³/min>

4 OUTLINES AND DIMENSIONS

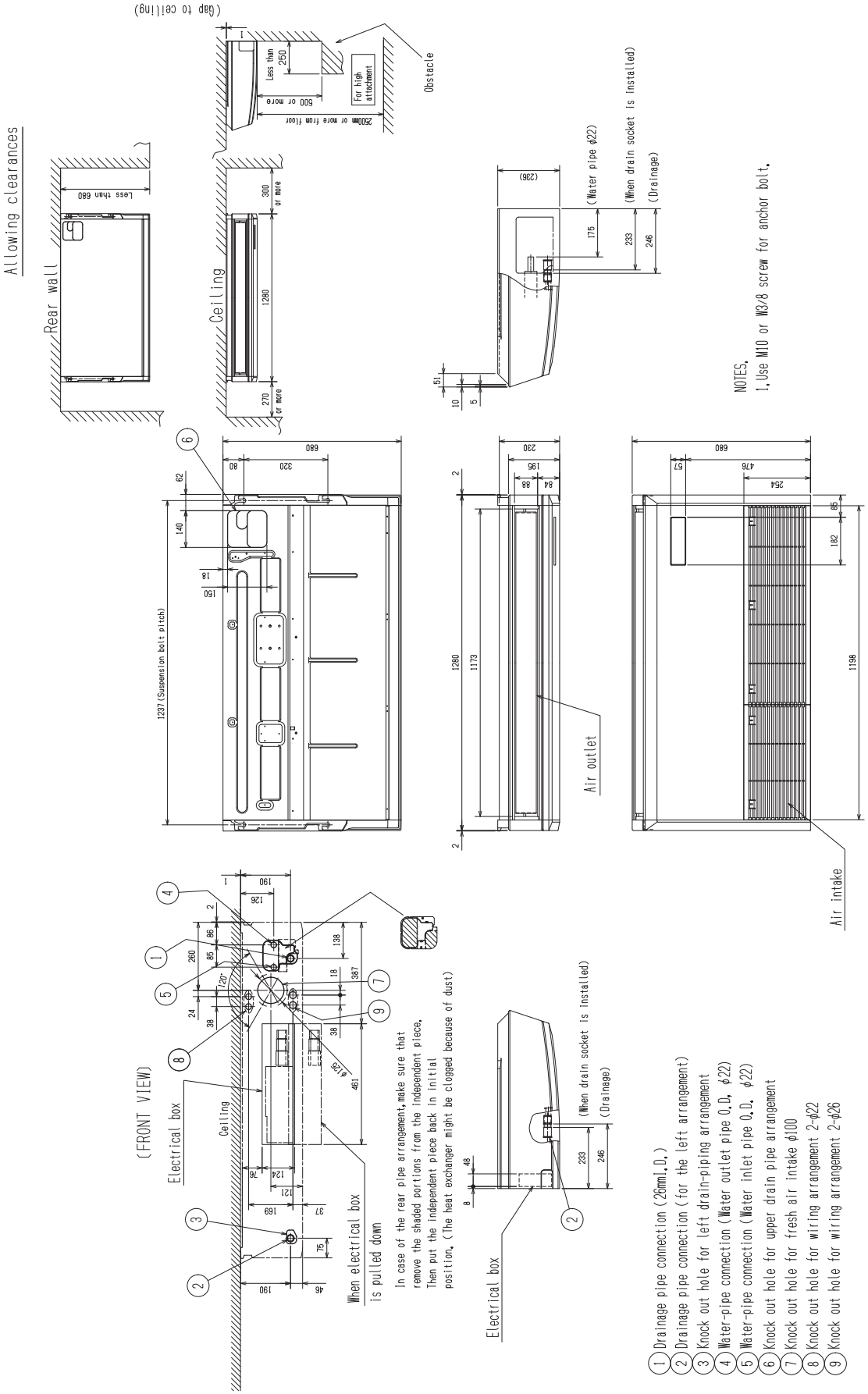
PCFY-WL40VKM-E
PCFY-WL40VKM-ET

Unit : mm



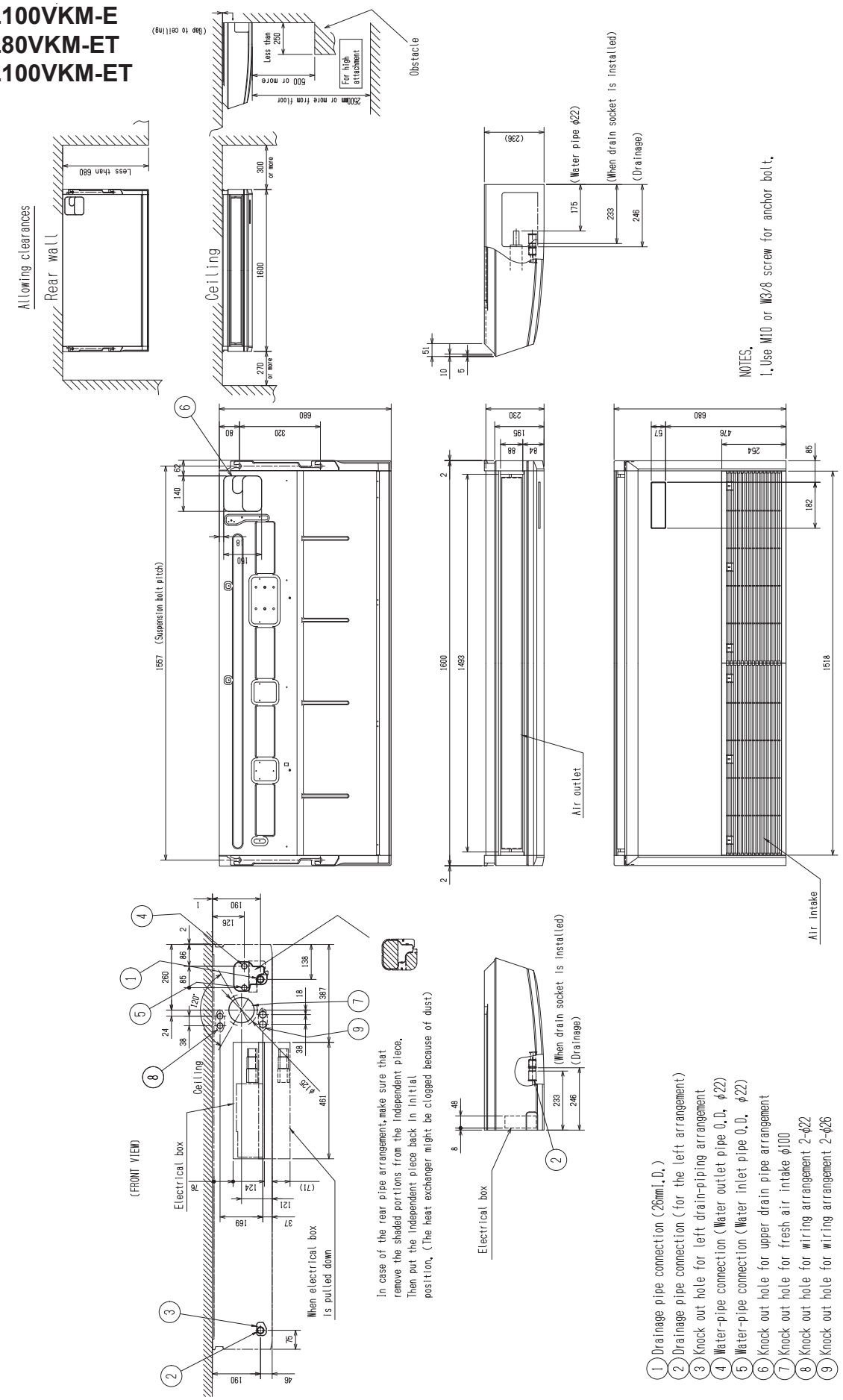
Unit : mm

PCFY-WL63VKM-E
PCFY-WL63VKM-ET



Unit : mm

PCFY-WL80VKM-E
PCFY-WL100VKM-E
PCFY-WL80VKM-ET
PCFY-WL100VKM-ET



5 WIRING DIAGRAM

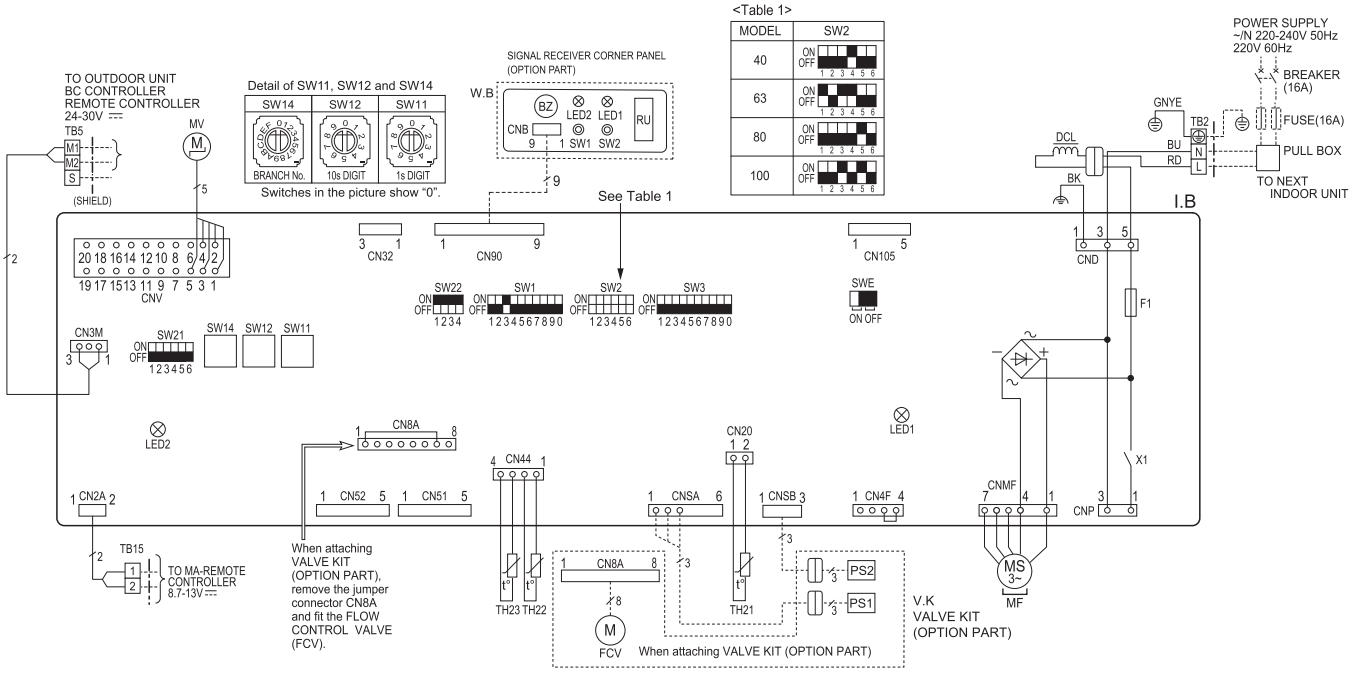
PCFY-WL40VKM-E PCFY-WL63VKM-E PCFY-WL80VKM-E PCFY-WL100VKM-E

[LEGEND]

SYMBOL		NAME		SYMBOL	NAME	
I. B		INDOOR CONTROLLER BOARD		TH21	THERMISTOR	ROOM TEMP. DETECTION (0°C / 15kΩ, 25°C / 5.4kΩ)
	CN32	CONNECTOR	REMOTE SWITCH			
	CN51		CENTRALLY CONTROL	TH22		PIPE TEMP. DETECTION / INLET (0°C / 15kΩ, 25°C / 5.4kΩ)
	CN52		REMOTE INDICATION			
	CN105		IT TERMINAL	TH23		PIPE TEMP. DETECTION / OUTLET (0°C / 15kΩ, 25°C / 5.4kΩ)
	F1	FUSE (T6.3AL250V)				
	SW1	SWITCH	MODE SELECTION	OPTIONAL PARTS		
	SW2		CAPACITY CODE		W.B	PCB FOR WIRELESS REMOTE CONTROLLER
	SW3		MODE SELECTION		BZ	BUZZER
	SW11		ADDRESS SETTING 1s DIGIT		LED1	LED (OPERATION INDICATION : GREEN)
	SW12		ADDRESS SETTING 10s DIGIT		LED2	LED (PREPARATION FOR HEATING : ORANGE)
	SW14		BRANCH No.		RU	RECEIVING UNIT
	SW21		CEILING HEIGHT SELECTOR OPTION SELECTOR		SW1	EMERGENCY OPERATION (HEAT / DOWN)
					SW2	EMERGENCY OPERATION (COOL / UP)
	SW22		PAIR NO. SETTING		V.K	VALVE KIT
	SWE		TEST MODE		PS1	PRESSURE SENSOR 1 (INLET)
DCL		REACTOR			PS2	PRESSURE SENSOR 2 (OUTLET)
MF		FAN MOTOR			FCV	FLOW CONTROL VALVE
MV		VANE MOTOR				
TB2		TERMINAL BLOCK	POWER SUPPLY			
TB5			TRANSMISSION			
TB15			MA-REMOTE CONTROLLER			

<Table 1>

MODEL	SW2
40	ON OFF 1 2 3 4 5 6
63	ON OFF 1 2 3 4 5 6
80	ON OFF 1 2 3 4 5 6
100	ON OFF 1 2 3 4 5 6



LED on indoor board for service

Mark	Meaning	Function
LED1	Main power supply	Main Power supply (Indoor unit:220-240V AC) power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

NOTES:
1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15.
   (Remote controller wire is non-polar.)
3. In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
4. Symbol [S] of TB5 is the shield wire connection.
5. Symbols used in wiring diagram are, □□□: terminal block, ○ ○ ○, □□□□: connector.
6. The setting of the SW2 differs in the capacity. For the detail, refer the Table 1.
7. The black square (■) in the wiring diagram indicates a switch position.

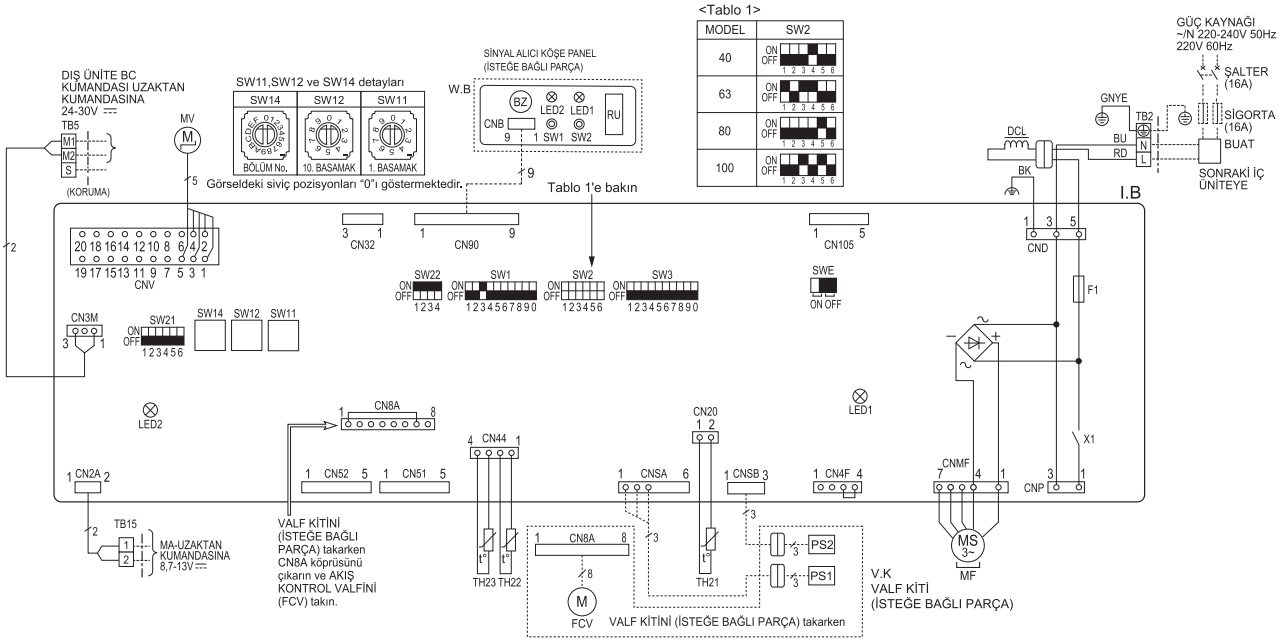
PCFY-WL40VKM-ET PCFY-WL63VKM-ET PCFY-WL80VKM-ET PCFY-WL100VKM-ET

[AÇIKLAMA]

SEMBOL		ADI		SEMBOL		ADI	
I. B		İÇ ÜNİTE KUMANDA KARTI		TH21	TERMİSTÖR	ODA SICAKL. ALGILAMA (0°C/15kΩ, 25°C/5,4kΩ)	
	CN32	KONNEKTÖR	UZAKTAN ANAHTAR				
	CN51		MERKEZİ KUMANDA	TH22		BORU SICAKL. ALGILAMA / GİRİŞ (0°C/15kΩ, 25°C/5,4kΩ)	
	CN52		UZAK GÖSTERGE				
	CN105		BT TERMİNALİ	TH23		BORU SICAKL. ALGILAMA / ÇIKIŞ (0°C/15kΩ, 25°C/5,4kΩ)	
	F1	SİGORTA (T6,3AL 250V)		İSTEĞE BAĞLI PARÇALAR			
	SW1	ANAHTAR	MOD SEÇİMİ		W.B	KABLOSUZ UZAKTAN KUMANDA DEVRE KARTI	
	SW2		KAPASİTE KODU		BZ	ZİL	
	SW3		MOD SEÇİMİ		LED1	LED (ÇALIŞMA GÖSTERGESİ: YEŞİL)	
	SW11		ADRES AYARI 1'LER BASAMAĞI		LED2	LED (ISITMA HAZIRLIĞI: TURUNCU)	
	SW12		ADRES AYARI 10'LAR BASAMAĞI		RU	ALICI ÜNİTE	
	SW14		BÖLÜM No.		SW1	ACİL DURUM ÇALIŞMASI (ISITMA/AŞAĞI)	
	SW21		TAVAN YÜKSEKLİĞİ SEÇİCİSİ SEÇENEK SEÇİCİSİ		SW2	ACİL DURUM ÇALIŞMASI (SOĞUTMA/YUKARI)	
	SW22		ÇİFT NO. AYARI		V.K	VALF KİTİ	
	SWE		TEST MODU		PS1	BASINÇ SENSÖRÜ 1 (GİRİŞ)	
DCL		TEPKİ BOBİNİ			PS2	BASINÇ SENSÖRÜ 2 (ÇIKIŞ)	
MF		FAN MOTORU			FCV	AKIŞ KONTROL VALFİ	
MV		KANATÇIK MOTORU					
TB2		TERMİNAL GRUBU	GÜÇ KAYNAĞI				
TB5			İLETİM				
TB15			MA UZAKTAN KUMANDA				

<Tablo 1>

MODEL	SW2
40	ON OFF 1 2 3 4 5 6
63	ON OFF 1 2 3 4 5 6
80	ON OFF 1 2 3 4 5 6
100	ON OFF 1 2 3 4 5 6

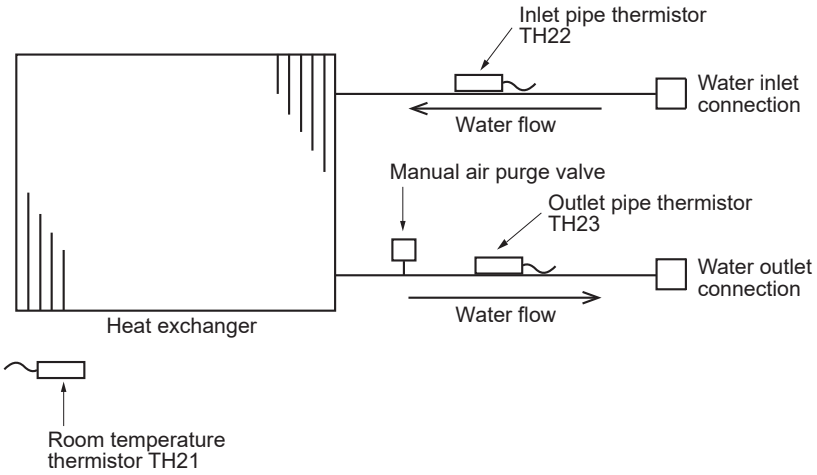


Servis için iç ünite LED açıklamaları

İşaret	Anlamı	İşlevi
LED1	Ana güç kaynağı	Ana Güç kaynağı (İç ünite: 220-240V AC) açık → lamba yanar
LED2	MA-Uzaktan kumanda güç kaynağı	MA-Uzaktan kumanda güç kaynağı açık → lamba yanar

NOTLAR:
1. Dış ünitede servis işlemlerinde her zaman dış ünitenin bağlantı şemasını takip edin.
2. MA-Uzaktan kumandasının kullanılması durumunda lütfen TB15'e bağlayın.
   (Uzaktan kumandanın kablosu kutupsuzdur.)
3. M-NET'in kullanılması durumunda lütfen TB5'e bağlayın. (İletim hattı kutupsuzdur.)
4. TB5'in sembolü [S] kablo korumalı bağlantıdır.
5. Bağlantı şemasında kullanılan semboller şu şekildedir: terminal bloğu için □□□, konnektör için □□□, □□□.
6. SW2'nin ayarı, kapasitede değişiklik göstermektedir. Ayrıntılar için Tablo 1'e bakın.
7. Bağlantı şemasındaki siyah kare (■) anahtar konumunu gösterir.

6 REFRIGERANT SYSTEM DIAGRAM

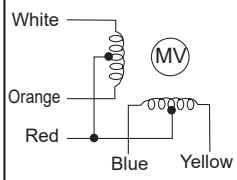


Unit : mm

Service Ref. / Item	PCFY-WL40VKM-E PCFY-WL40VKM-ET	PCFY-WL63VKM-E PCFY-WL63VKM-ET PCFY-WL80VKM-E PCFY-WL80VKM-ET PCFY-WL100VKM-E PCFY-WL100VKM-ET
Water outlet	Min. I.D. 20	Min. I.D. 30
Water inlet	Min. I.D. 20	Min. I.D. 30

7 TROUBLESHOOTING

7-1. HOW TO CHECK THE PARTS

<table>
<tr><th>Parts name</th><th>Checkpoints</th></tr>
<tr><td>Room temperature thermistor (TH21)
Inlet pipe thermistor (TH22)
Outlet pipe thermistor (TH23)</td><td>Disconnect the connector then measure the resistance with a tester.
(At the ambient temperature of 10°C~30°C)
<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>4.3kΩ~9.6kΩ</td><td>Open or short</td></tr></table>(Refer to Thermistor characteristic graph.)</td></tr>
<tr><td>Vane motor (MV)
 
</td><td>Measure the resistance between the terminals with a tester.
(At the ambient temperature of 20°C~30°C
<table><tr><th>Connector</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Red - Yellow</td><td rowspan="4">300Ω ± 7%</td><td rowspan="4">Open or short</td></tr><tr><td>Red - Blue</td></tr><tr><td>Red - Orange</td></tr><tr><td>Red - White</td></tr></table></td></tr>
</table>

7-1-1. Thermistor

<Thermistor characteristic graph>

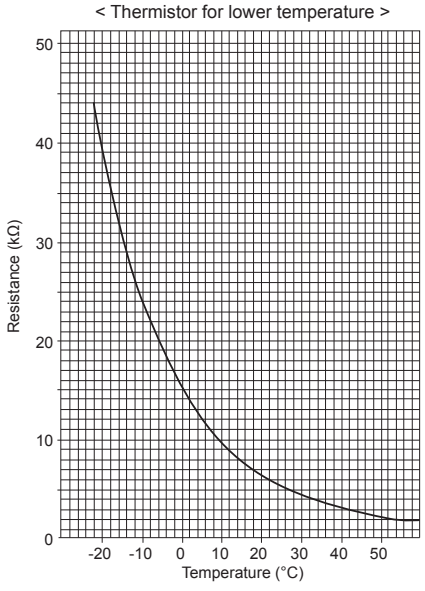
Thermistors for lower temperature

Room temperature thermistor (TH21)
Inlet pipe thermistor (TH22)
Outlet pipe thermistor (TH23)

Thermistor R_0=15 kΩ ± 3%
Fixed number of B=3480 ± 2%

$$Rt=15\exp\{3480(\frac{1}{273+t}-\frac{1}{273})\}$$

0°C	15 kΩ
10°C	9.6 kΩ
20°C	6.3 kΩ
25°C	5.4 kΩ
30°C	4.3 kΩ
40°C	3.0 kΩ



7-1-2. DC Fan motor (fan motor/indoor controller circuit board)

Check method of DC fan motor (fan motor/indoor controller circuit board)

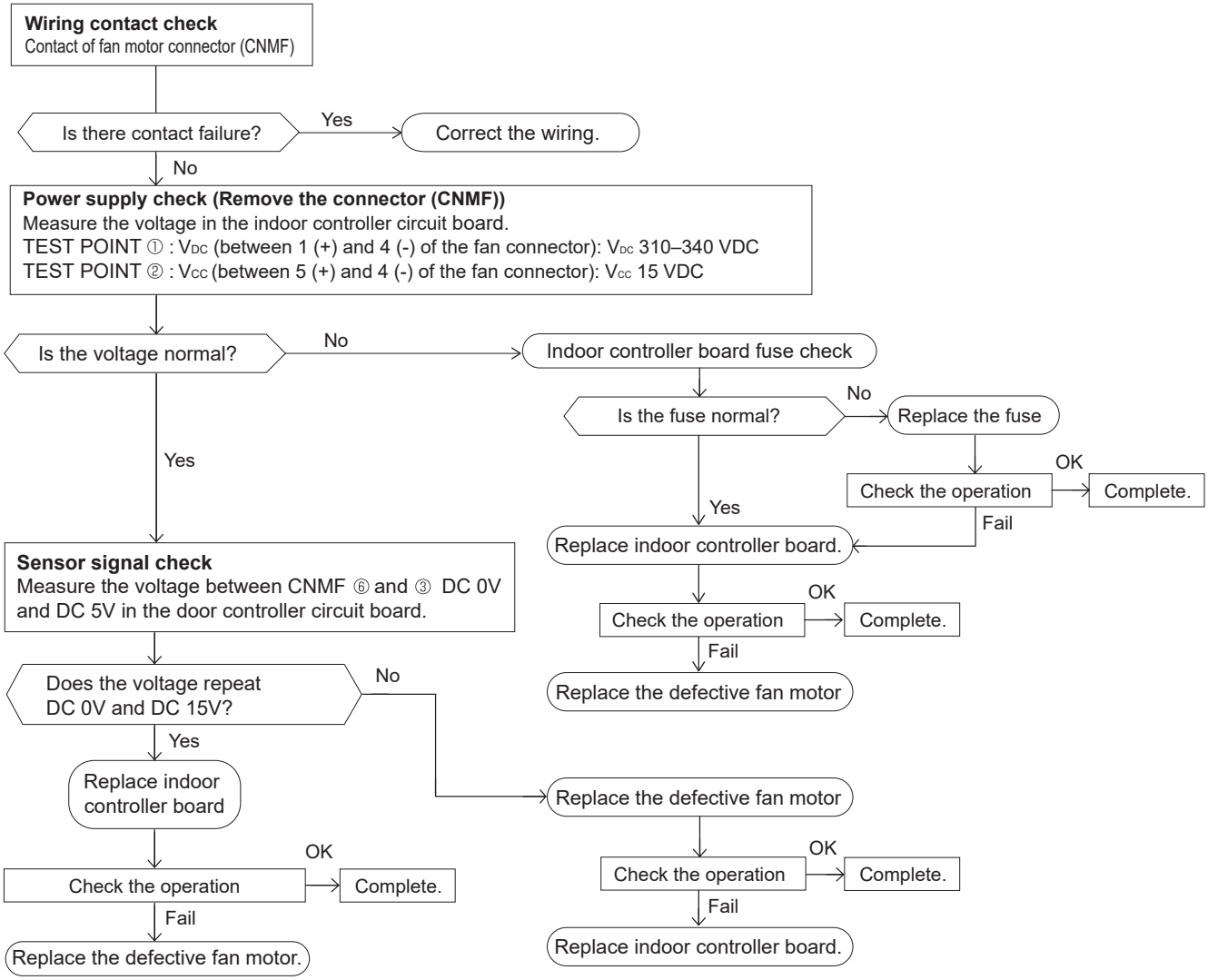
① Notes

· High voltage is applied to the connector (CNMF) for the fan motor. Pay attention to the service.

· Do not pull out the connector (CNMF) for the motor with the power supply on.
(It causes trouble of the indoor controller board and fan motor.)

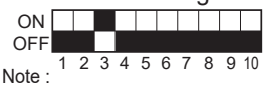
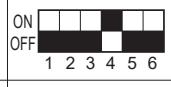
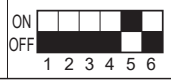
② Self check

Symptom : The indoor fan cannot turn around.



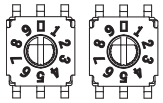
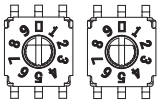
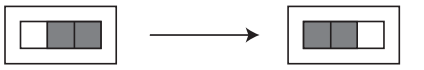
7-2. FUNCTION OF DIP SWITCH

The black square (■) indicates a switch position.

Switch	Pole	Function	Operation by switch		Effective timing	Remarks
			ON	OFF		
SW1 Function setting	1	Thermistor <Room temperature detection> position	Built-in remote controller	Indoor unit	Under suspension	<Initial setting>  Note : ※1 Fan operation at heating mode ※2 Thermo ON operation at heating mode ※3 SW1-7 / SW1-8 / — OFF / OFF / Extra low ON / OFF / Low OFF / ON / Setting airflow ON / ON / Stop
	2	Filter clogging detection	Provided	Not provided		
	3	Filter cleaning	2,500 hr	100 hr		
	4	Fresh air intake	Effective	Not effective		
	5	Switching remote display	Thermo ON signal display	Indicating fan operation ON/OFF		
	6	Humidifier control	Always operated while the heat in ON※1	Operated depends on the condition ※2		
	7	Airflow set in case of Heat thermo OFF at heating mode	Low ※3	Extra low ※3		
	8		Setting air flow ※3	Depends on SW1-7		
	9	Auto restart function	Effective	Not effective		
	10	Power ON/OFF by breaker	Effective	Not effective		
SW2 Capacity code setting	1~6	Capacity / SW 2 WL40  WL63  WL80  WL100 			Before power supply ON	<Initial setting> Set for each capacity.
SW3 Function setting	1	Heat pump/Cooling only	Cooling only	Heat pump	Under suspension	<Initial setting>  Note : ※4 SW3-5
	2	—	—	—		
	3	—	—	—		
	4	—	—	—		
	5	Vane horizontal angle	Second setting ※4	First setting ※4		
	6	—	—	—		
	7	—	—	—		
	8	4-deg up (Heating mode)	Not effective	Effective		
	9	—	—	—		
	10	—	—	—		

Note : ※4 SW3-5

SW3-5	Vane setting	Initial setting	Setting	Vane position
OFF	First setting	●	Standard	Standard
ON	Second setting		Less draft	Upward position than the standard

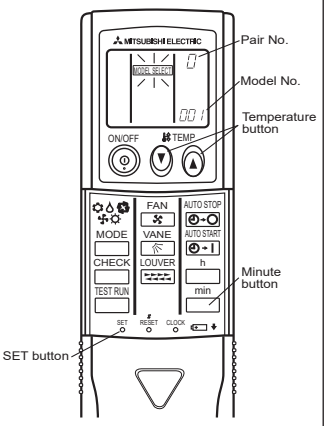
Switch	Pole	Function	Operation by switch		Effective timing	Remarks
			ON	OFF		
SW11 1s digit address setting SW12 10s digit address setting	Rotary switch	SW12 SW11  10 1 How to set address Example : If address is "3", remain SW12 (for over 10) at "0", and match SW11 (for 1 to 9) with "3".			Before power supply ON	<Initial setting> SW12 SW11  10 1
SW14 Branch No. setting	Rotary switch	SW14  How to set branch number SW14 (Series R2 only) Match the indoor unit's refrigerant pipe with the BC contoller's end connection number Remain other than series R2 at "0".				<Initial setting> SW14 
SWE Test run for drain pump	Connector	Drain pump and fan are activated simultaneously after the connector SWE is set to ON and turn on the power. SWE SWE  ON OFF ON OFF The connector SWE is set to OFF after test run.			Under operation	<Initial setting> SWE  ON OFF

* Set the switch while the indoor unit and the outdoor unit are both OFF.

The black square (■) indicates a switch position.

<table>
<tr><th rowspan="2">Switch</th><th rowspan="2">Pole</th><th rowspan="2">Function</th><th colspan="2">Operation by switch</th><th rowspan="2">Effective timing</th><th rowspan="2">Remarks</th></tr>
<tr><th>ON</th><th>OFF</th></tr>
<tr><td rowspan="6">SW21 Function Selection</td><td>1</td><td>Setting the ceiling height</td><td colspan="2" rowspan="2">Depending on the combination of SW21-1 and SW21-2.</td><td rowspan="6">Under Suspension</td><td rowspan="6"><Initial setting>
 
</td></tr>
<tr><td>2</td><td>Setting the ceiling height</td></tr>
<tr><td>3</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>4</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>5</td><td>Setting for optional parts</td><td>Option</td><td>Standard</td></tr>
<tr><td>6</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>SW22 Function Selection</td><td>Switch</td><td>
<table>
<tr><th></th><th>Function</th><th>ON</th><th>OFF</th></tr>
<tr><td>1</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>2</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>3</td><td>Pair No. of wireless remote controller</td><td colspan="2" rowspan="2">Depends on the combination of SW22-3 and 22-4</td></tr>
<tr><td>4</td><td>Pair No. of wireless remote controller</td></tr>
</table>
• To operate each indoor unit by each remote controller when installed 2 indoor units or more are near, Pair No. setting is necessary.
• Pair No. setting is available with the 4 patterns.
• Make setting for SW22-3, 22-4 of indoor controller board and the Pair No. of wireless remote controller.

• Pair No. setting is not necessary when operating the unit by one remote controller.
• Wireless remote controller pair number:
Setting operation
1. Press the SET button (using a pointed implement). Check that the remote controller's display has stopped before continuing. MODEL SELECT flashes, and the model No. (3 digits) appears (steadily-lit).
2. Press the MINUTE button twice. The pair number appears flashing.
3. Press the temperature ▽△ buttons to select the pair number to set.
4. Press the SET button (using a pointed implement).The set pair number is displayed (steadily-lit) for 3 seconds, then disappears.
<table>
<tr><th colspan="2">Indoor unit SW22</th><th rowspan="2">Pair No. of wireless remote controller</th><th rowspan="2"></th></tr>
<tr><th>SW22-3</th><th>SW22-4</th></tr>
<tr><td>ON</td><td>ON</td><td>0</td><td>Initial setting</td></tr>
<tr><td>OFF</td><td>ON</td><td>1</td><td>–</td></tr>
<tr><td>ON</td><td>OFF</td><td>2</td><td>–</td></tr>
<tr><td>OFF</td><td>OFF</td><td>3–9</td><td>–</td></tr>
</table>
</td><td>Under suspension</td><td><Initial setting>
 

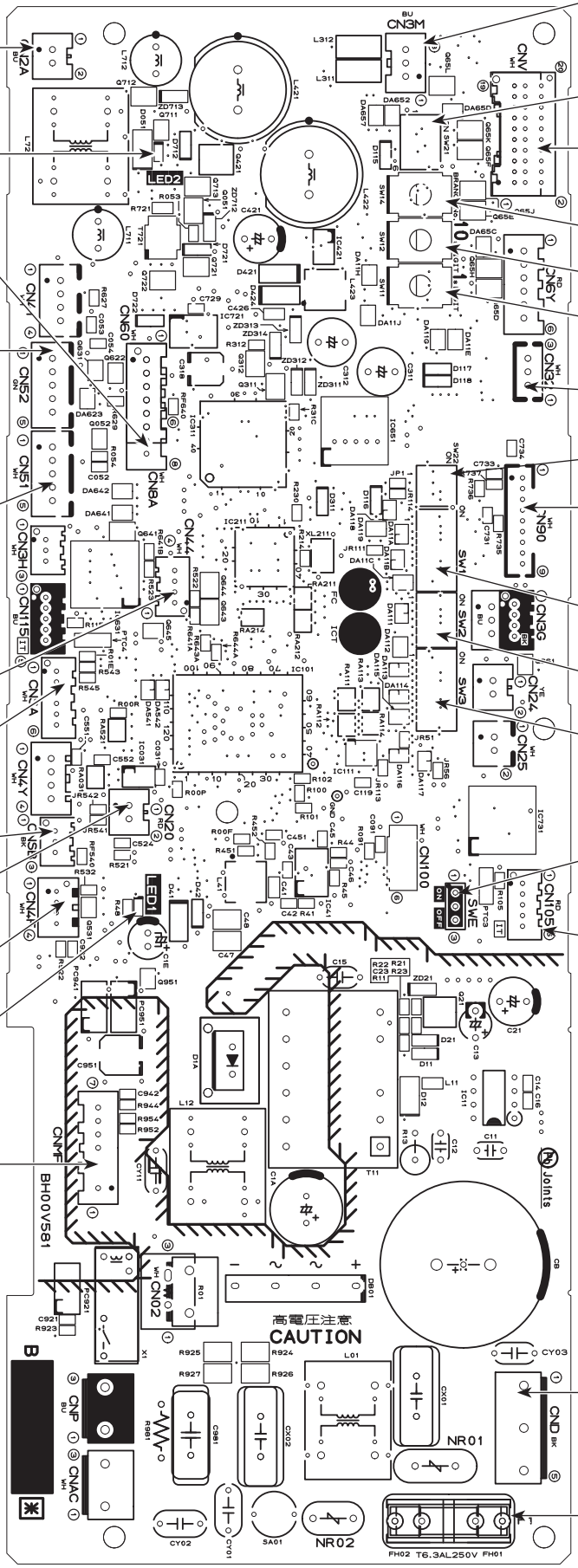
 
</td></tr>
</table>

Note: SW21-1,SW21-2

	Silent		Standard		High ceiling	
	SW21-1	SW21-2	SW21-1	SW21-2	SW21-1	SW21-2
	OFF	ON	OFF	OFF	ON	OFF
WL40,WL63	2.5m		2.7m		3.5m	
WL80,WL100	2.6m		3.0m		4.2m	

7-3. TEST POINT DIAGRAM

7-3-1. Indoor controller board



* The voltage range of 12 VDC in this page is between 11.5 VDC to 13.7 VDC.

8 DISASSEMBLY PROCEDURE

Be careful when removing heavy parts.

→ : Indicates the visible parts in the photos/figures.

(Photo: **PCFY-WL100VKM-E**)

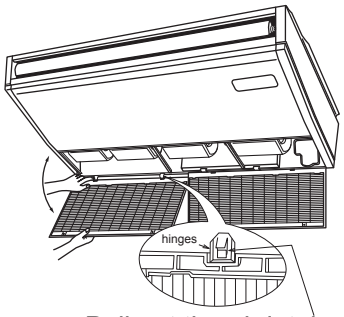
OPERATING PROCEDURE

1. Removing the air intake grille

(1) Slide the air intake grille holding knobs (at 2 or 3 locations) to the rear to open the air intake grille. (See Figure 1)

(2) While the air intake grille left open, push the stoppers on the rear hinges (at 2 or 3 locations) to pull out the air intake grille. (See Figure 2)

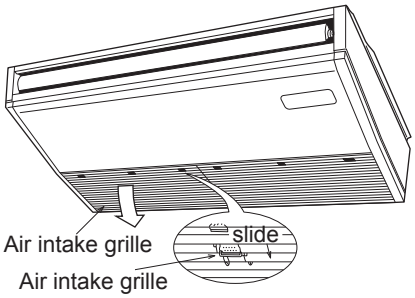
Figure 2



Pull out the air intake grille

PHOTOS/FIGURES

Figure 1



2. Removing the indoor controller board and the electrical box

(1) Remove the air intake grille. (See Figure 1,2)

(2) Remove the screw from the beam and remove the beam. (See Photo 1)

(3) Remove 2 screws from the electrical cover, and remove the electrical cover.

(4) Remove 2 screws from the electrical box and pull the electrical box downward.
Temporarily secure the electrical box using 2 hooks in the back of electrical box.

(5) Disconnect the connectors on the indoor controller board.

[Removing the electrical box]

(6) Disconnect the wires from the terminal blocks and pull out the electrical box. (See Photo 2)

[Removing the indoor controller board]

(6) Remove the 6 supports from the indoor controller board and remove the indoor controller board. (See Photo 3)

Photo 1

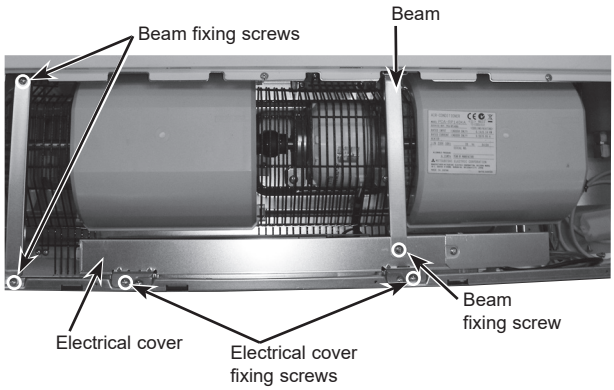


Photo 2

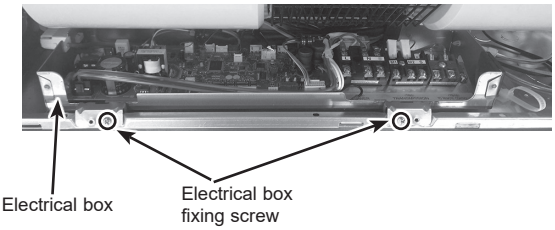
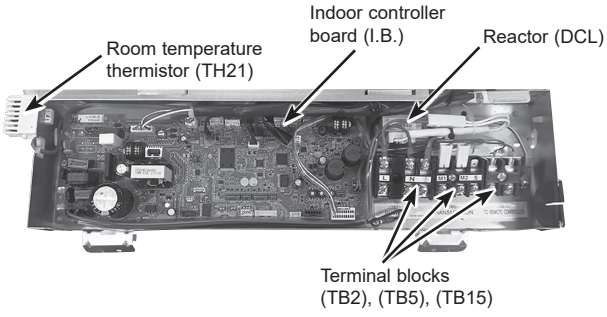
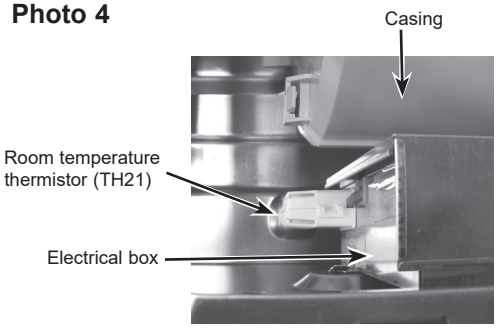
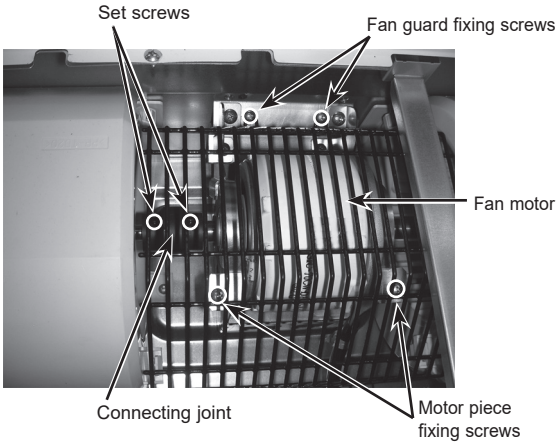
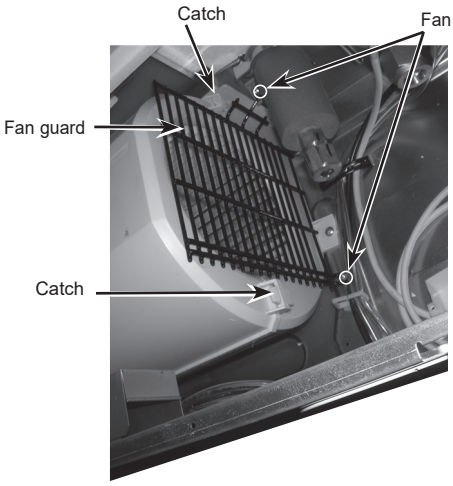
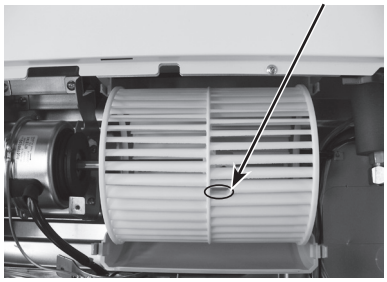
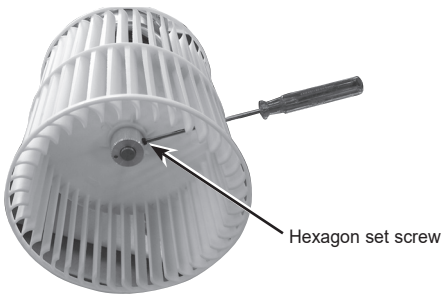


Photo 3



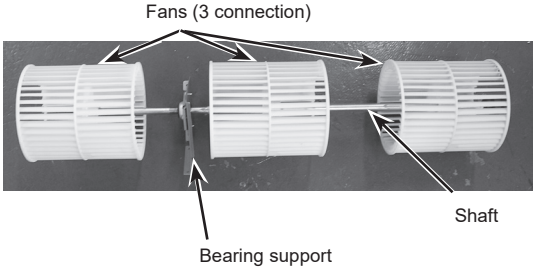
OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing the room temperature thermistor (TH21) (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the screw from the beam and remove the beam. (See Photo 1) (3) Remove 2 screws from the electrical cover, and remove the electrical cover. (4) Remove 2 screws from the electrical box and pull the electrical box downward. Temporarily secure the electrical box using 2 hooks in the back of electrical box. (5) Disconnect the connector CN20 from the indoor controller board. (6) Remove the sensor holder from the electrical box and remove the thermistor form the holder.	**Photo 4** 
4. Removing the fan motor and right side fan (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the screw from the beam and remove the beam. (See Photo 1) (3) Remove 2 screws from the electrical cover, and remove the electrical cover. (4) Remove 2 screws from the electrical box and pull the electrical box downward. (5) Temporarily secure the electrical box using 2 hooks in the back of electrical box. (6) Remove 4 screws fixing fan guard of the fan motor. (2 screws : See Photo 5 / 2 screws : Upper the electrical box) (7) Remove 2 screws fixing fan guard of piping side and remove the fan guard. (See Photo 6) (8) Remove the lower casing while pressing the 4 catches of the casing (right side of the fan motor). (9) Loosen the 2 set screws (2 hexagon set screws) of connecting joint and slide the fan motor to the left. (See Photo 5) (10) Remove the motor piece (left and right, each 1 screw). (See Photo 5) (11) Remove the fan motor and right side fan together. (12) Loosen the set screw (hexagon set screw) of fan and remove the fan from the shaft. (See Photo 7, 8)	**Photo 5**  **Photo 6**  **Photo 7** 
Photo 8  	

OPERATING PROCEDURE

5. Removing the fan (3 connection)

(1) Remove the air intake grille. (See Figure 1, 2)
(2) Remove the screw from the beam and remove the beam. (See Photo 1)
(3) Remove 2 screws from the electrical cover, and remove the electrical cover.
(4) Remove 2 screws from the electrical box and pull the electrical box downward.
Temporarily secure the electrical box using 2 hooks in the back of electrical box.
(5) Remove 4 screws from the fan guard of the fan motor. (See Photo 5)
(6) Remove 2 screws from the left side beam and remove the beam. (See Photo 1)
(7) Remove the 3 screws from center fan guard and remove the fan guard. (2 screws : See Photo 9 / 1 screw : Drain pan side)
(8) Remove 2 screws from the left fan guard and remove the fan guard. (See Photo 10)
(9) Loosen 2 set screws (2 hexagon set screws) of connecting joint. (See Photo 5)
(10) Remove 3 lower casings while pressing each 4 catches of the casing.
(11) Remove the 4 screws from the bearing support. (See Photo 11)
(12) Slide the connecting joint to the left and remove the fans and shaft together. (See Photo 12)
(13) Remove the fan from the shaft. (See Photo 7, 8)

Photo 12



PHOTOS/FIGURES

Photo 9

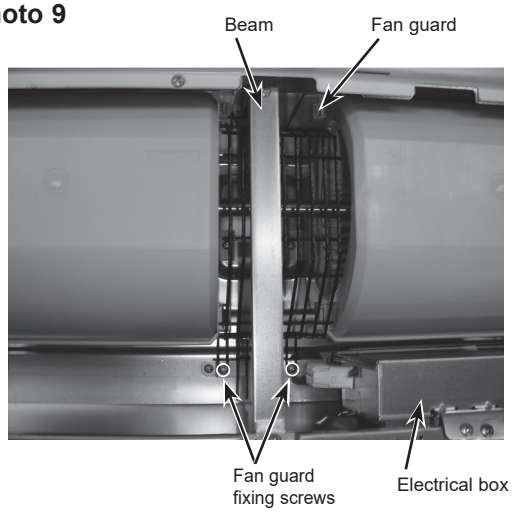


Photo 10

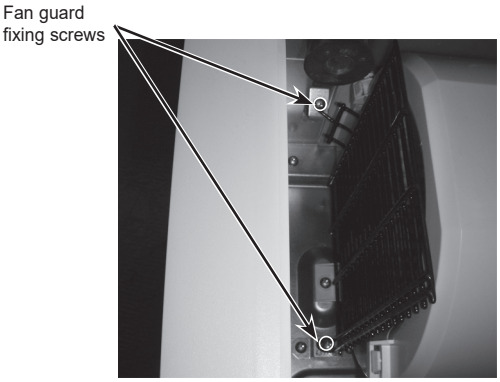
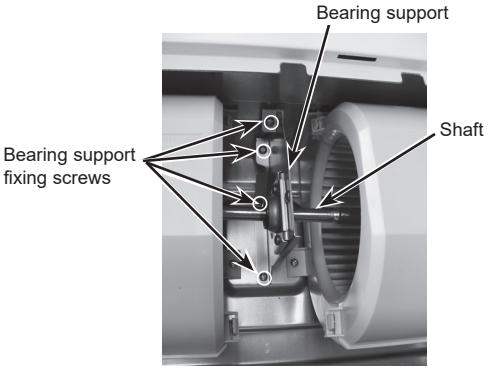


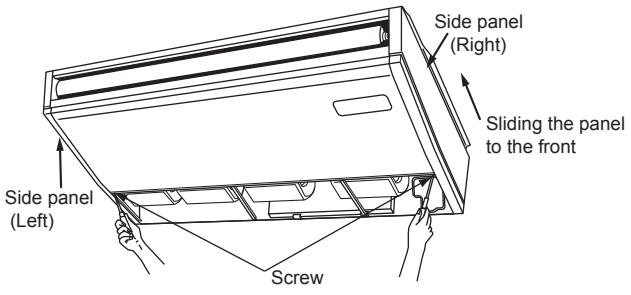
Photo 11

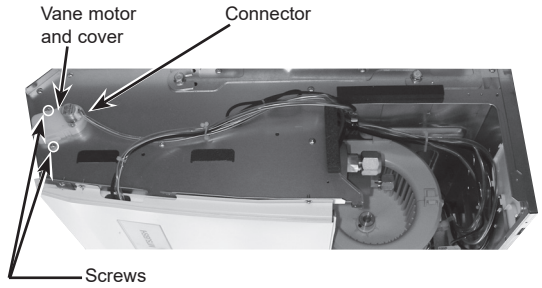
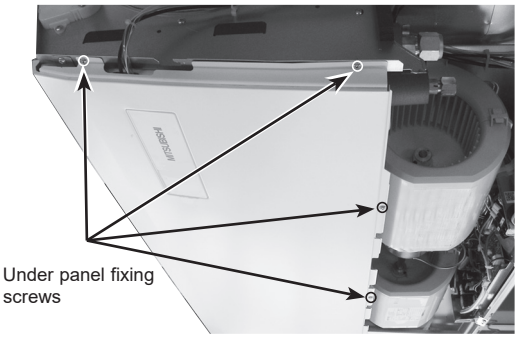
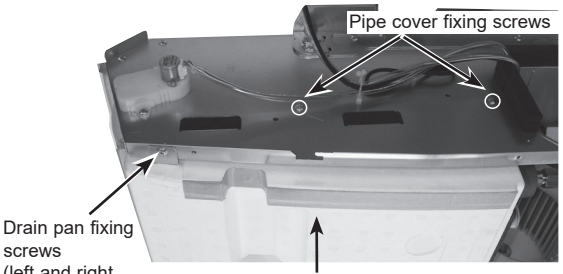
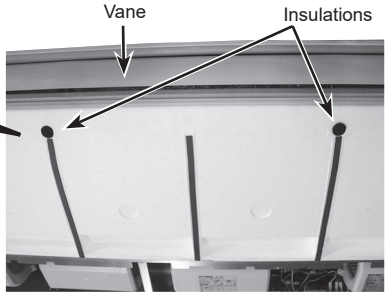
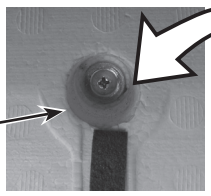


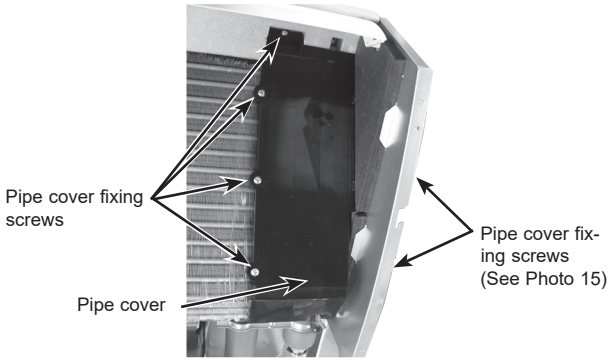
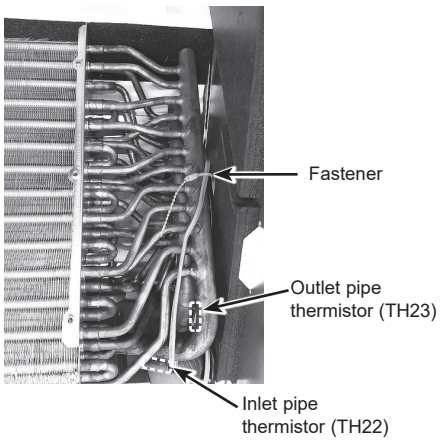
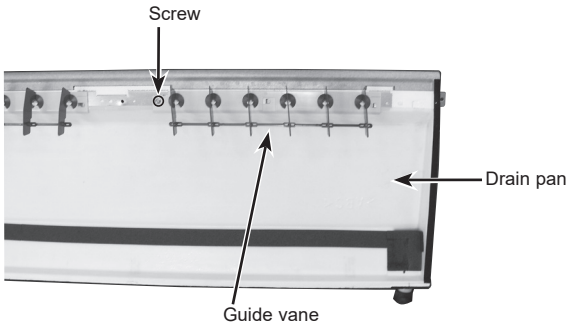
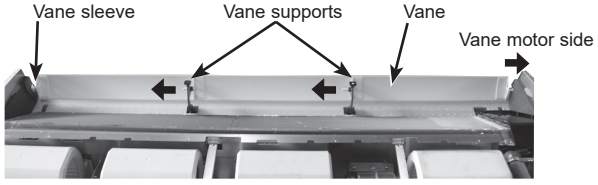
6. Removing the side panel

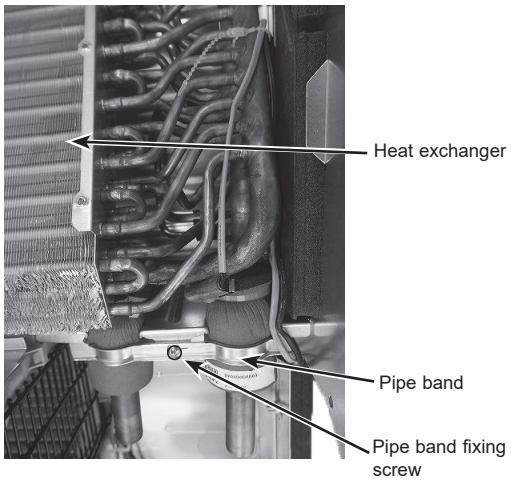
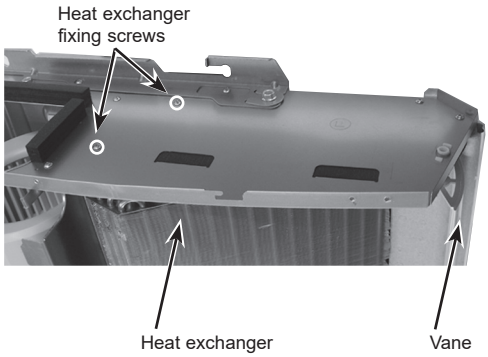
(1) Remove the air intake grille. (See Figure 1, 2)
(2) Remove the screw from the side panel, and remove the side panel by sliding the panel to the front.

Figure 3



OPERATING PROCEDURE	PHOTOS/FIGURES
7. Removing the vane motor (1) Remove the air intake. (See Figure 1, 2) (2) Remove the right side panel. (See Figure 3) (3) Remove the connector of vane motor. (4) Remove 2 screws of vane motor cover , then remove vane motor.	**Photo 13** 
8. Removing the under panel (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the left and right side panels. (See Figure 3) (3) Remove the beam. (See Photo 1) (4) Remove the electrical cover. (See Photo 1) (5) Pull the electrical box downward. (See Photo 2) (6) (Wireless remote controller receiver type only) Disconnect the connector CNB from the PCB for wireless remote controller and remove the clamp and strap for wires. (7) Remove 8 screws from the under panel. (8) Move the under panel forward by about 10mm and remove the under panel.	**Photo 14** 
9. Removing the drain pan (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the side panel (right and left). (See Figure 3) (3) Remove the under panel. (See Photo 14) Remove the screws of the right and left side drain pan. (See Photo 15) (4) Remove 2 insulation in center of the drain pan, and after removing 2 screws with washer, remove the drain pan. (See Photo 16, 17) (Note) Please be aware that there might be some drainage left in the drain pan when you remove the drain pan.	**Photo 15**  **Photo 16** 
Photo 17  	

OPERATING PROCEDURE	PHOTOS/FIGURES
10. Removing the pipe thermistors / Inlet (TH22) and Outlet (TH23) (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the left and right side panels. (See Figure 3) (3) Remove the under panel. (See Photo 14) (4) Remove the drain pan. (See Photo 15, 16, 17) (5) Disconnect the connector CN44 from the indoor controller board. (6) Remove 6 screws from the pipe cover and remove the pipe cover. (See Photo 15, 18) (7) Remove the fastener for wires and remove the thermistors (inlet and outlet) from each holder. (See Photo 19)	**Photo 18**  **Photo 19** 
11. Removing the guide vane (1) Remove the intake grille. (See Figure 1, 2) (2) Remove the side panel (right and left). (See Figure 3) (3) Remove the under panel. (See Photo 14) (4) Remove the drain pan. (See Photo 15, 16, 17) (5) Remove the screw from the guide vane, then remove the guide vane.	**Photo 20** 
12. Removing the Auto vane (1) Remove the intake grille. (See Figure 1, 2) (2) Remove the right side panel. (See Figure 3) (3) Remove the vane motor and cover. (See Photo 13) (4) Slide the auto vane to the vane motor side. (5) Remove 2 axes from each vane support pushing the vane support to the vane sleeve side.	**Photo 21** 

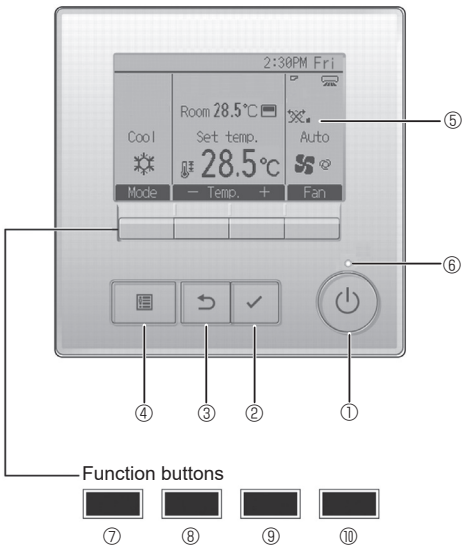
OPERATING PROCEDURE	PHOTOS/FIGURES
13. Removing the heat exchanger (1) Remove the air intake grille. (See Figure 1, 2) (2) Remove the beam. (See Photo 1) (3) Remove the electrical cover. (See Photo 1) (4) Pull the electrical box downward. (See Photo 2) (5) Remove the left and right side panels. (See Figure 3) (6) Remove the under panel. (See Photo 14) (7) Remove the drain pan. (See Photo 15, 16, 17) (8) Remove the pipe cover. (See Photo 18) (9) Remove the pipe thermistors (TH22 and TH23) from each holder. (See Photo 19) (10) Remove the pipe band fixing screw and remove the pipe band. (See Photo 22) (11) Remove 2 screws from the heat exchanger.	**Photo 22**  **Photo 23** 

9 REMOTE CONTROLLER

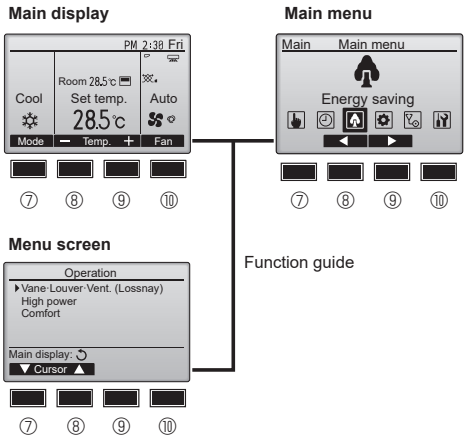
9-1. REMOTE CONTROLLER FUNCTIONS

<PAR-41MAA>

Controller interface



The functions of the function buttons change depending on the screen.
Refer to the button function guide that appears at the bottom of the LCD for the functions they serve on a given screen.
When the system is centrally controlled, the button function guide that corresponds to the locked button will not appear.



① [ON/OFF] button

Press to turn ON/OFF the indoor unit.

② [SELECT] button

Press to save the setting.

③ [RETURN] button

Press to return to the previous screen.

④ [MENU] button

Press to bring up the Main menu.

⑤ Backlit LCD

Operation settings will appear.
When the backlight is off, pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.

When the backlight is off, pressing any button turns the backlight on and does not perform its function. (except for the [ON/OFF] button)

⑥ ON/OFF lamp

This lamp lights up in green while the unit is in operation. It blinks while the remote controller is starting up or when there is an error.

⑦ Function button [F1]

Main display: Press to change the operation mode.
Menu screen: The button function varies with the screen.

⑧ Function button [F2]

Main display: Press to decrease temperature.
Main menu: Press to move the cursor left.
Menu screen: The button function varies with the screen.

⑨ Function button [F3]

Main display: Press to increase temperature.
Main menu: Press to move the cursor right.
Menu screen: The button function varies with the screen.

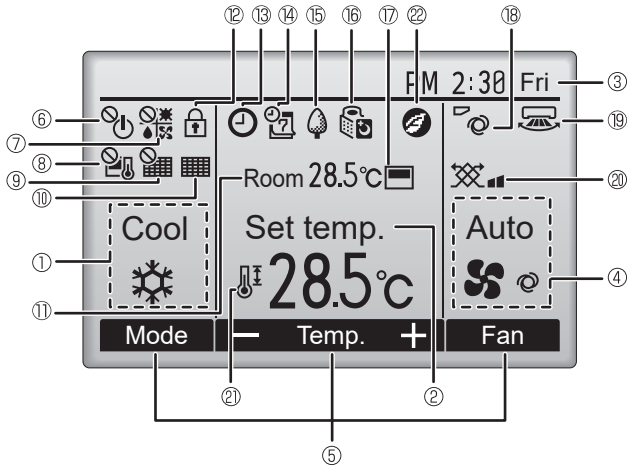
⑩ Function button [F4]

Main display: Press to change the fan speed.
Menu screen: The button function varies with the screen.

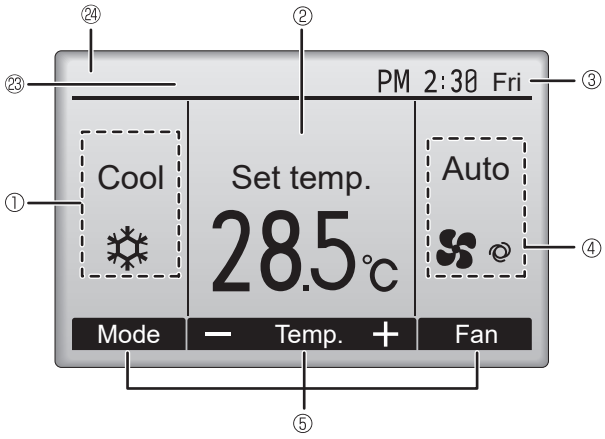
Display

The main display can be displayed in two different modes: ″Full″ and ″Basic″. The initial setting is ″Full″. To switch to the ″Basic″ mode, change the setting on the Main display setting. (Refer to operation manual included with remote controller.)

<Full mode>
* All icons are displayed for explanation.



<Basic mode>



① Operation mode

② Preset temperature

③ Clock

④ Fan speed

⑤ Button function guide

Functions of the corresponding buttons appear here.

⑥

Appears when the ON/OFF operation is centrally controlled.

⑦

Appears when the operation mode is centrally controlled.

⑧

Appears when the preset temperature is centrally controlled.

⑨

Appears when the filter reset function is centrally controlled.

⑩

Indicates when filter needs maintenance.

⑪ Room temperature

⑫

Appears when the buttons are locked.

⑬

Appears when the On/Off timer, Night setback, or Auto-off timer function is enabled.

appears when the timer is disabled by the centralized control system.

⑭

Appears when the Weekly timer is enabled.

⑮

Appears while the units are operated in the energy saving mode. (Will not appear on some models of indoor units)

⑯

Appears while the outdoor units are operated in the silent mode.

⑰

Appears when the built-in thermistor on the remote controller is activated to monitor the room temperature (⑪).

appears when the thermistor on the indoor unit is activated to monitor the room temperature.

⑱

Indicates the vane setting.

⑲ *1

Indicates the louver setting.

⑳

Indicates the ventilation setting.

㉑

Appears when the preset temperature range is restricted.

㉒ *1

Appears when an energy saving operation is performed using a ″3D i-see Sensor″ function.

㉓ Centrally controlled

Appears for a certain period of time when a centrally-controlled item is operated.

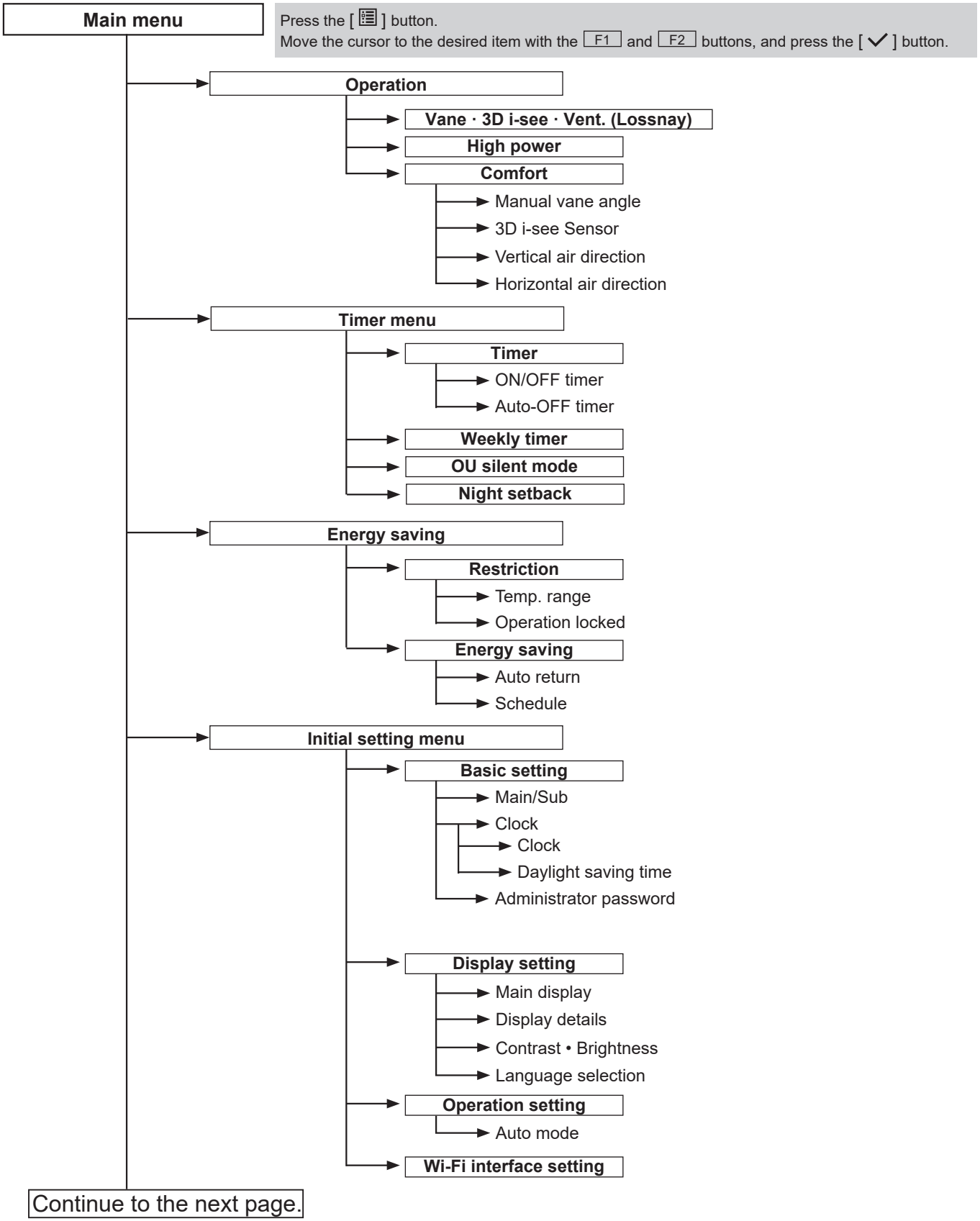
㉔ Preliminary error display

An error code appears during the preliminary error.

Most settings (except ON/OFF, mode, fan speed, temperature) can be made from the Main menu.

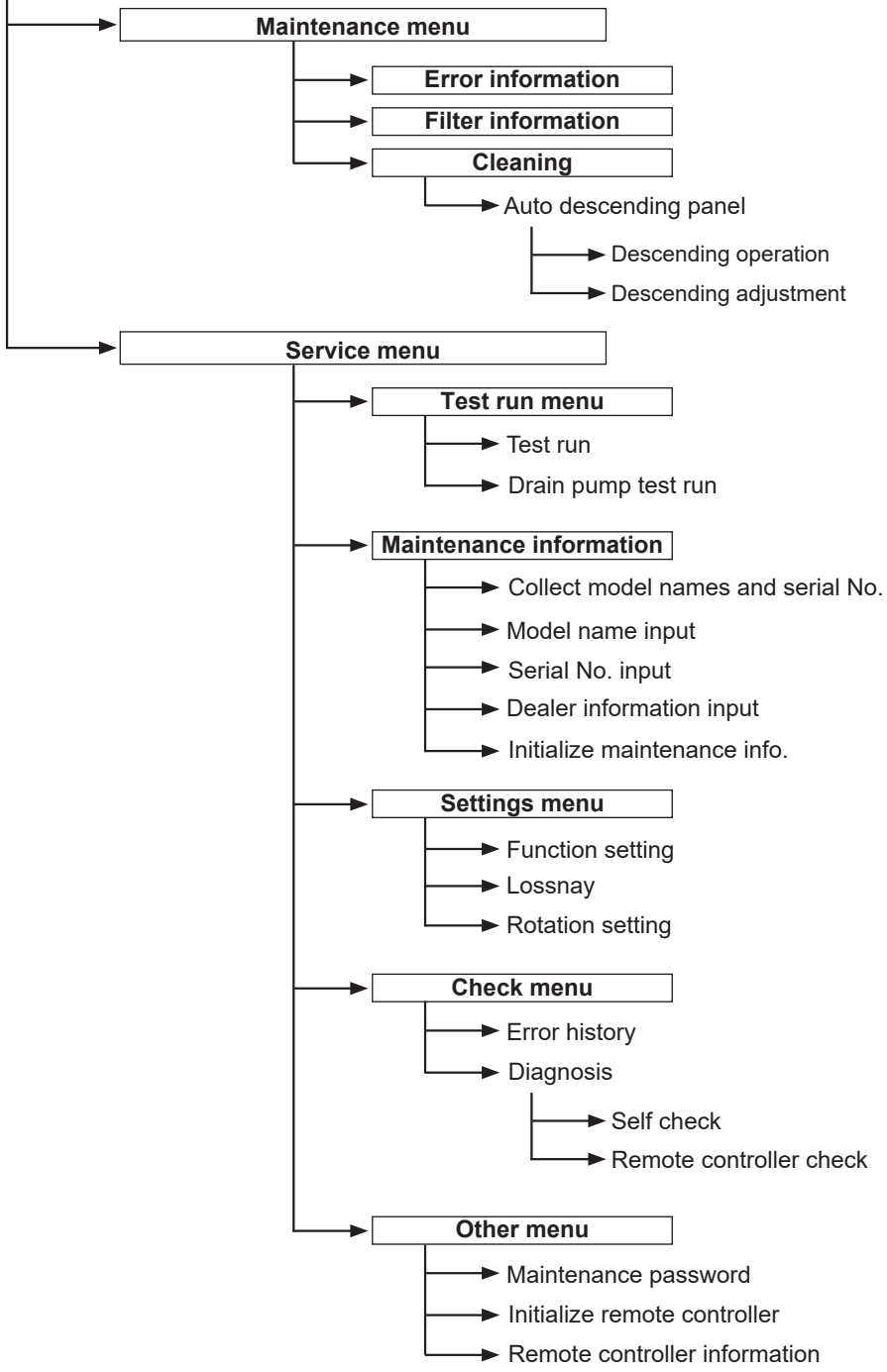
*1 These functions are not applied to the floor standing models.

Menu structure



Not all functions are available on all models of indoor units.

Continue from the previous page.



Not all functions are available on all models of indoor units.

Main menu list

Main menu	Setting and display items		Setting details
Operation	**Vane · 3D i-see · Vent. (Vane.Vent. (Lossnay))**		**Vane: Use to set the vertical air direction.** **Louver: Use to set the horizontal air direction.** **3D i-see Sensor: This setting is available only for the air conditioners that support easy setting function of motion sensing air direction.** **Vent: Use to set the amount of ventilation.**
	High power *3		**Use to reach the comfortable room temperature quickly.** • Units can be operated in the High-power mode for up to 30 minutes.
	Comfort	**Manual vane angle**	**Vertical air direction** • Sets the vertical airflow direction (vane) of each unit.
			Horizontal air direction • Sets the horizontal airfow direction (vane) of each unit.
		3D i-see Sensor	**Use to set the following functions for 3D i-see Sensor.** • Air distribution • Energy saving option • Seasonal airflow
Timer	**Timer**	**ON/OFF timer** *1	**Use to set the operation ON/OFF times.** • Time can be set in 5-minute increments.
		Auto-OFF timer	**Use to set the Auto-OFF time.** • Time can be set to a value from 30 to 240 in 10-minute increments.
	Weekly timer *1, *2		**Use to set the weekly operation ON/OFF times.** • Up to 8 operation patterns can be set for each day. (Not valid when the ON/OFF timer is enabled.)
	OU silent mode *1, *3		**Use to set the time periods in which priority is given to quiet operation of outdoor units over temperature control. Set the Start/Stop times for each day of the week.** •Select the desired silent level from ″Normal,″ ″Middle,″ and ″Quiet.″
	Night setback *1		**Use to make Night setback settings.** • Select ″Yes″ to enable the setting, and ″No″ to disable the setting. The temperature range and the start/stop times can be set.
Energy saving	**Restriction**	**Temp. range** *2	**Use to restrict the preset temperature range.** • Different temperature ranges can be set for different operation modes.
		Operation lock	**Use to lock selected functions.** • The locked functions cannot be operated.
	Energy saving	**Auto return** *2	**Use to get the units to operate at the preset temperature after performing energy saving operation for a specified time period.** • Time can be set to a value from 30 and 120 in 10-minute increments. (This function will not be valid when the preset temperature ranges are restricted.)
		Schedule *1, *3	**Set the start/stop times to operate the units in the energy saving mode for each day of the week, and set the energy saving rate.** • Up to 4 energy saving operation patterns can be set for each day. • Time can be set in 5-minute increments. • Energy saving rate can be set to a value from 0% or 50 to 90% in 10% increments.
	Energy data (for unit time, month, and day)		**Displays the amount of power consumption during operation.** • Unit time data: Data for the last one-month period can be displayed in 30-minute units. • Monthly/daily data: Data for the last 14-month period are displayed in day-and-month-units. * Data can be deleted. * Data are obtained based on the power consumption estimated from the operating state.

*1 Clock setting is required.

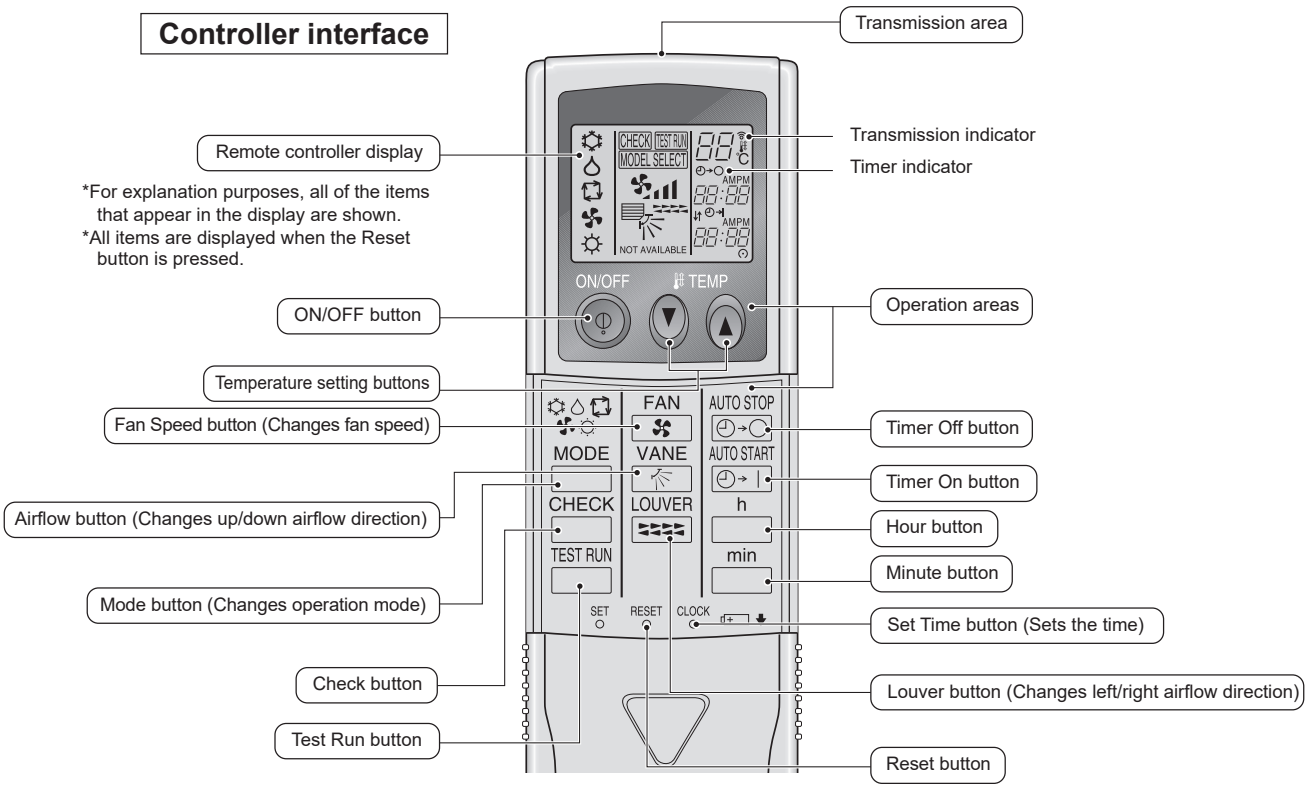
*2 1°C increments.

*3 This function is available only when certain outdoor units are connected.

Main menu	Setting and display items		Setting details
Initial setting	**Basic setting**	**Main/Sub**	**When connecting 2 remote controllers, one of them needs to be designated as a sub controller.**
		Clock	**Use to set the current time.**
		Daylight saving time	**Set the daylight saving time.**
		Administrator password	**The administrator password is required to make the settings for the following items.** • Timer setting • Energy saving setting • Weekly timer setting • Restriction setting • Outdoor unit silent mode setting • Night set back
	Display setting	**Main display**	**Use to switch between ˝Full˝ and ˝Basic˝ modes for the Main display, and use to change the background colors of the display to black.**
		Display details	**Make the settings for the remote controller related items as necessary.** **Clock:** The initial settings are ˝Yes˝ and ˝24h˝ format. **Temperature:** Set either Celsius (°C) or Fahrenheit (°F). **Room temp.:** Set Show or Hide. **Auto mode:** Set Auto mode display or Only Auto display.
		Contrast • Brightness	**Use to adjust screen contrast and brightness.**
		Language selection	**Use to select the desired language.**
	Operation setting	**Auto mode**	**Whether or not to use Auto mode can be selected by using the button.** **This setting is valid only when indoor units with Auto mode function are connected.**
Maintenance	**Error information**		**Use to check error information when an error occurs.** • Error code, error source, refrigerant address, model name, manufacturing number, contact information (dealer's phone number) can be displayed. (The model name, manufacturing number, and contact information need to be registered in advance to be displayed.)
	Filter information		**Use to check the filter status.** • The filter sign can be reset.
	Cleaning	**Auto descending panel**	**Use to lift and lower the auto descending panel (Optional parts).**
Service	**Test run**		**Select ˝Test run˝ from the Service menu to bring up the Test run menu.** • Test run • Drain pump test run
	Input maintenance info.		**Select ˝Input maintenance Info.˝ from the Service menu to bring up the Maintenance information screen.** **The following settings can be made from the Maintenance Information screen.** • Model name input • Serial No. input • Dealer information input • Initialize maintenance info.
	Settings	**Function setting**	**Make the settings for the indoor unit functions via the remote controller as necessary.**
		LOSSNAY setting	**This setting is required only when the operation of CITY MULTI units is interlocked with LOSSNAY units.**
	Check	**Error history**	Display the error history and execute ˝delete error history˝.
		Diagnosis	**Self check:** Error history of each unit can be checked via the remote controller. **Remote controller check:** When the remote controller does not work properly, use the remote controller checking function to troubleshoot the problem.
	Others	**Maintenance password**	**Use to change the maintenance password.**
		Initialize remote controller	**Use to initialize the remote controller to the factory shipment status.**
		Remote controller information	**Use to display the remote controller model name, software version, and serial number.**

<PAR-SL94B-E>

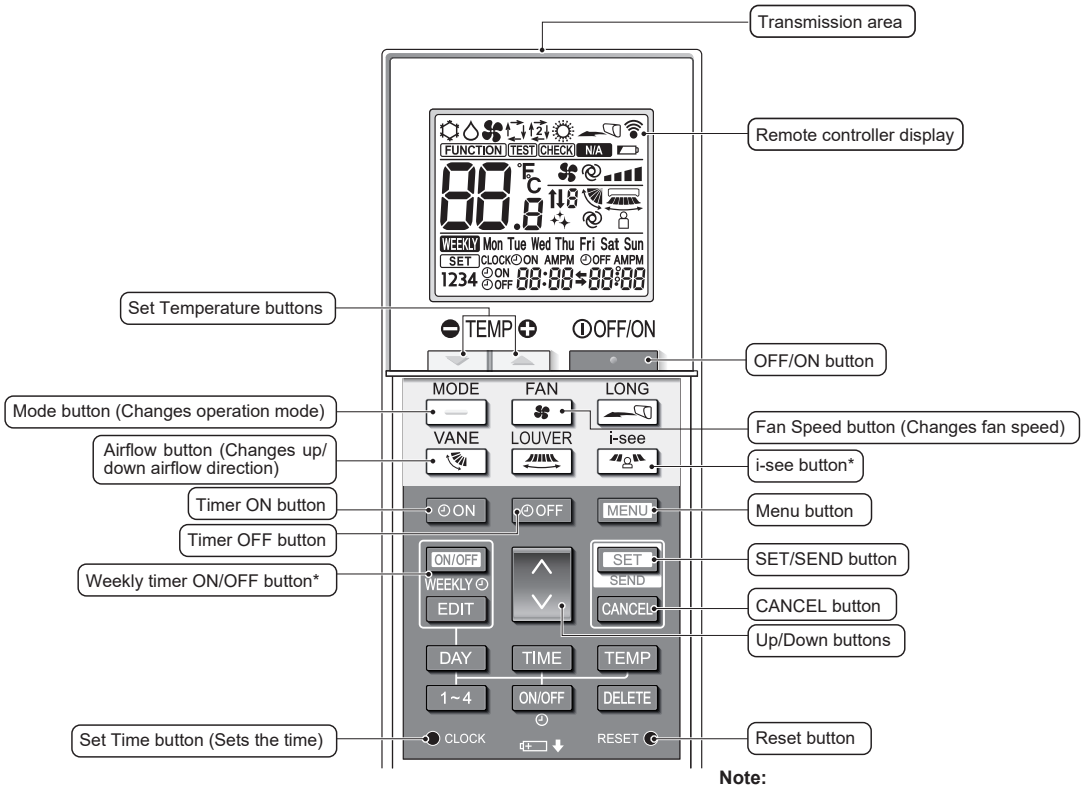
Controller interface



- When using the wireless remote controller, point it towards the receiver on the indoor unit.
- If the remote controller is operated within approximately three minutes after power is supplied to the indoor unit, the indoor unit may beep three times as the unit is performing the initial automatic check.
- The indoor unit beeps to confirm that the signal transmitted from the remote controller has been received. Signals can be received up to approximately 7 meters in a direct line from the indoor unit in an area 45 degrees to the left and right of the unit. However, illumination such as fluorescent lights and strong light can affect the ability of the indoor unit to receive signals.
- If the operation lamp near the receiver on the indoor unit is blinking, the unit needs to be inspected. Consult your dealer for service.
- Handle the remote controller carefully! Do not drop the remote controller or subject it to strong shocks. In addition, do not get the remote controller wet or leave it in a location with high humidity.
- To avoid misplacing the remote controller, install the holder included with the remote controller on a wall and be sure to always place the remote controller in the holder after use.

<PAR-SL101A-E>

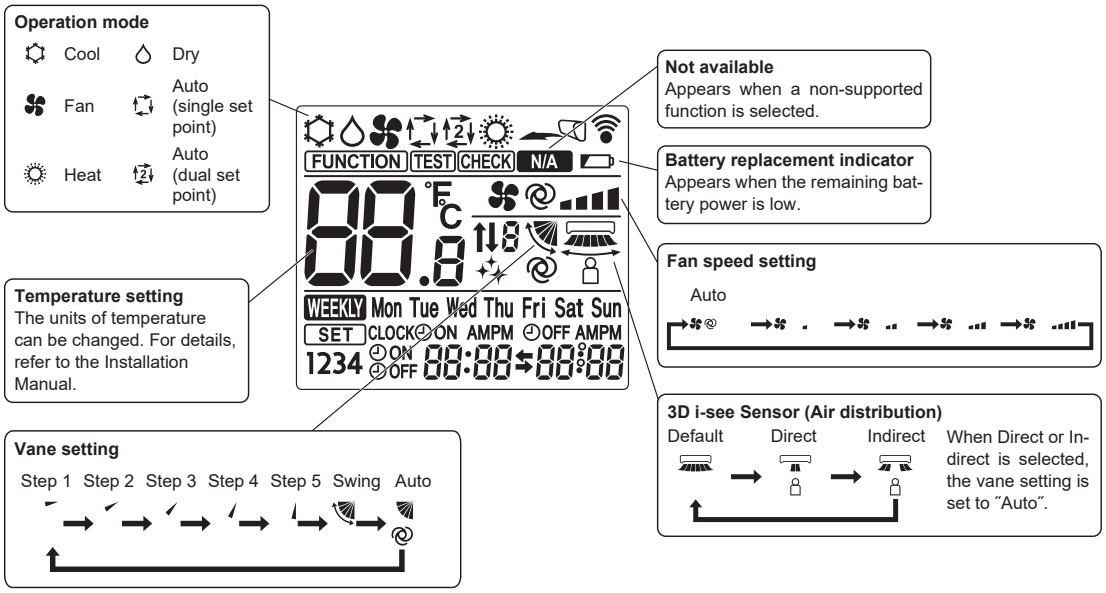
Controller interface



Note:

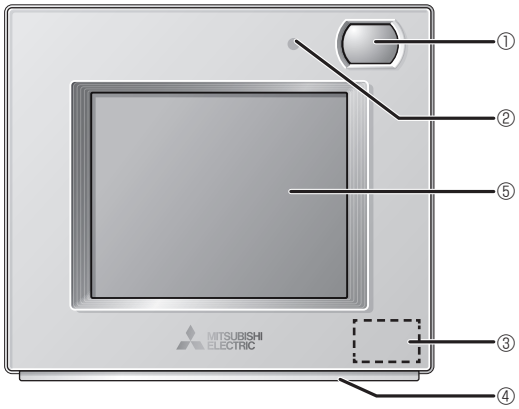
* **This button is enabled or disabled depending on the model of the indoor unit.**

Display



<PAR-U02MEDA>

Controller interface



① Occupancy Sensor

The occupancy sensor detects vacancy for energy-save control.

② Brightness Sensor

The brightness sensor detects the brightness of the room for energy-save control.

③ Temperature & Humidity Sensor

The sensor detects the room temperature and the relative humidity.

④ LED Indicator

The LED indicator indicates the operation status in different colors.
The LED indicator lights up during normal operation, lights off when units are stopped, and blinks when an error occurs.

⑤ Touch panel & Backlit LCD

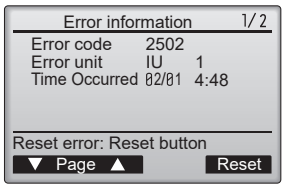
The touch panel shows the operation settings screen.
When the backlight is off, touching the panel turns the backlight on, and it will stay lit for a predetermined period of time.

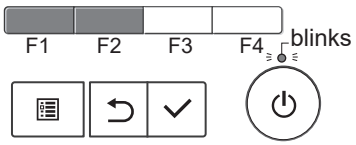
9-2. ERROR INFORMATION

When an error occurs, the following screen will appear.
Check the error status, stop the operation, and consult your dealer.

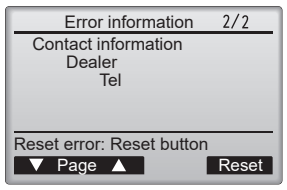
1. Error code, error unit, refrigerant address, date and time of occurrence, model name, and serial number will appear.
   The model name and serial number will appear only if the information have been registered.

   Press the F1 or F2 button to go to the next page.





Contact information (dealer's phone number) will appear if the information has been registered.



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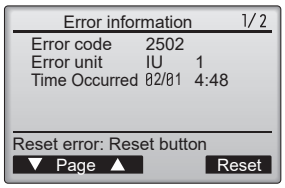
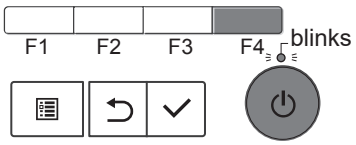
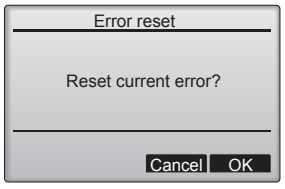
2. Press the F4 button or the ⏻ button to reset the error that is occurring.

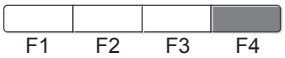
Errors cannot be reset while the ON/OFF operation is prohibited.

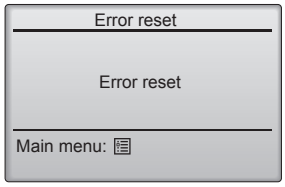




Select ″OK″ with the F4 button.





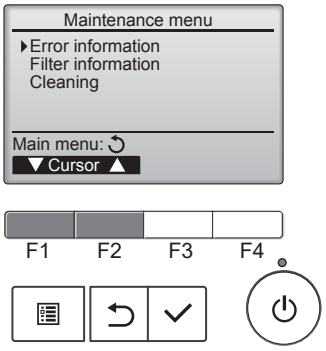


Navigating through the screens

• To go back to the Service menu ..... [☰] button

• Checking the error information

While no errors are occurring, page 2/2 of the error information can be viewed by selecting ″Error information″ from the Maintenance menu.
Errors cannot be reset from this screen.

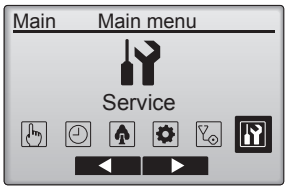


9-3. SERVICE MENU

Maintenance password is required

1. Select ″Service″ from the Main menu, and press the [✓] button.

   *At the main display, the menu button and select ″Service″ to make the maintenance setting.



2. When the Service menu is selected, a window will appear asking for the password.

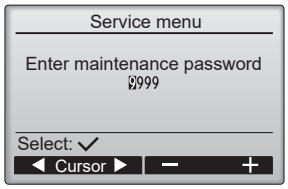
   To enter the current maintenance password (4 numerical digits), move the cursor to the digit you want to change with the F1 or F2 button.

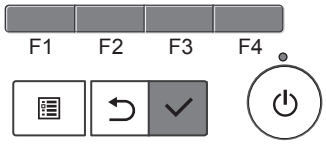
   ▼

   Set each number (0 through 9) with the F3 or F4 button.

   ▼

   Then, press the [✓] button.





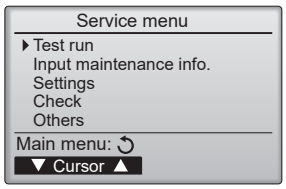
Note: The initial maintenance password is ″9999″. Change the default password as necessary to prevent unauthorized access. Have the password available for those who need it.
If you forget your maintenance password, you can initialize the password to the default password ″9999″ by pressing and holding the F1 button for 10 seconds on the maintenance password setting screen.

3. If the password matches, the Service menu will appear.

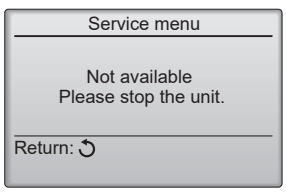
Note: Air conditioning units may need to be stopped to make only at ″Settings″. There may be some settings that cannot be made when the system is centrally controlled.

▼

A screen will appear that indicates the setting has been saved.



▼

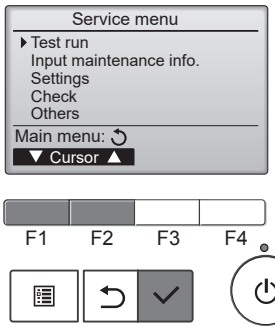


Navigating through the screens

- To go back to the Service menu .....[☰] button
- To return to the previous screen.....[⮌] button

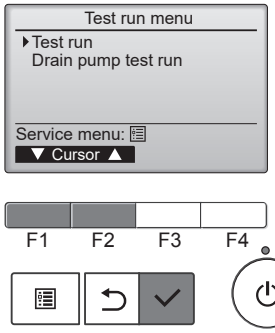
9-4. TEST RUN
9-4-1. PAR-41MAA

1. Select ″Service″ from the Main menu, and press the [✓] button.



Select ″Test run″ with the F1 or F2 button, and press the [✓] button.

2. Select ″Test run″ with the F1 or F2 button, and press the [✓] button.



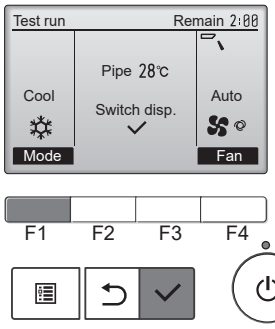
Test run operation

Press the F1 button to go through the operation modes in the order of ″Cool and Heat″.

Cool mode: Check the cold air blows out.
Heat mode: Check the heat blows out.

Check the operation of the outdoor unit's fan.

Press the [✓] button and open the Vane setting screen.



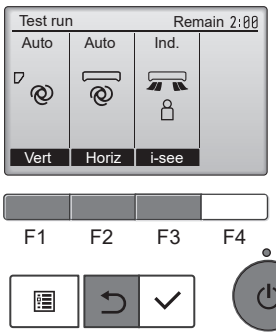
Auto vane check

Check the auto vane with the F1 F2 F3 buttons.

Press the [⮌] button to return to ″Test run operation″.

Press the ⏻ button.

When the test run is completed, the ″Test run menu″ screen will appear.
The test run will automatically stop after 2 hours.
*The function is available only for the model with vanes.



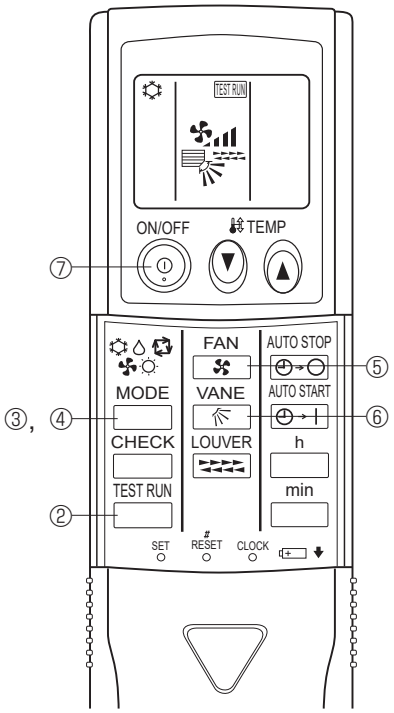
9-4-2. PAR-SL94B-E

Measure an impedance between the power supply terminal block on the outdoor unit and ground with a 500 V Megger and check that it is equal to or greater than 1.0 MΩ.

1. Turn on the main power to the unit.
2. Press the TEST RUN button twice continuously.
   (Start this operation from the status of remote controller display turned off.)
   A TEST RUN and current operation mode are displayed.
3. Press the MODE (☼◊✤☼⟳) button to activate COOL ☼ mode, then check whether cool air blows out from the unit.
4. Press the MODE (☼◊✤☼⟳) button to activate HEAT ☼ mode, then check whether warm air blows out from the unit.
5. Press the FAN button and check whether strong air blows out from the unit.
6. Press the VANE button and check whether the auto vane operates properly.
7. Press the ON/OFF button to stop the test run.

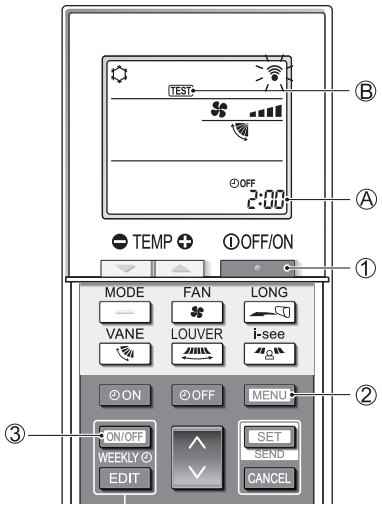
Note:

- **Point the remote controller towards the indoor unit receiver while following steps** 2 **to** 7**.**
- **It is not possible to run in FAN, DRY or AUTO mode.**

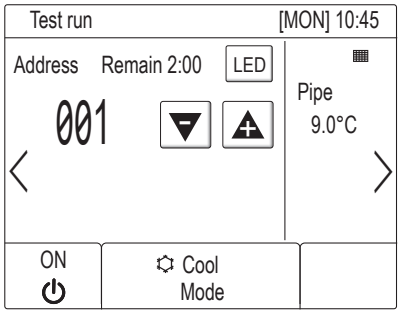


9-4-3. PAR-SL101A-E

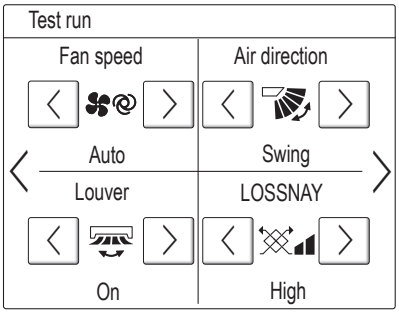
1. Press the button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the ON/OFF WEEKLY button ③ to disable it (WEEKLY is off).
2. Press the MENU button ② for 5 seconds.
   - CHECK comes on and the unit enters the service mode.
3. Press the MENU button ②.
   - TEST Ⓑ comes on and the unit enters the test run mode.
4. Press the following buttons to start the test run.
   : Switch the operation mode between cooling and heating and start the test run.
   : Switch the fan speed and start the test run.
   : Switch the airflow direction and start the test run.
   : Switch the louver and start the test run.
   SET: Start the test run.
5. Stop the test run.
   - Press the button ① to stop the test run.
   - After 2 hours, the stop signal is transmitted.



9-4-4. PAR-U02MEDA



[Test run screen]



[Indoor unit setting screen]

(a) Read the section about Test run in the indoor unit Installation Manual before performing a test run.

(b) During the test run, indoor units will be forced to operate in the Thermo-ON status.
Except the set temperature, normal operation functions are accessible during test run.

(c) By selecting the address of another indoor unit, the liquid pipe temperature of the selected unit can be monitored.

(d) The test run will automatically end in two hours.

* When AHC is controlled from the controller
To monitor the operating status of AHC, touch the [<] button on the [Test run] screen and access the [General equipment] screen.
To set the humidity setting for the humidifier (when one is connected to the AHC), touch the [>] button on the [Indoor unit setting] screen.

9-5. FUNCTION SETTING
9-5-1. PAR-41MAA

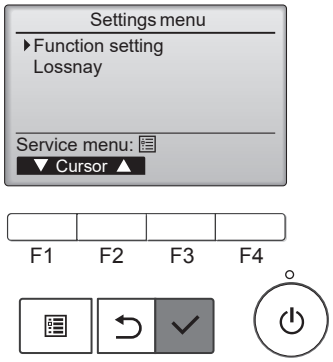
1. Select ″Service″ from the Main menu, and press the [✓] button.

   ▼

   Select ″Setting″ from the Service menu, and press the [✓] button.

   ▼

   Select ″Function setting″, and press the [✓] button.



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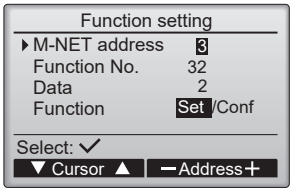
2. The Function setting screen will appear.
   Press the F1 or F2 button to move the cursor to one of the following: M-NET address, function setting number, or setting value. Then, press the F3 or F4 button to change the settings to the desired settings.

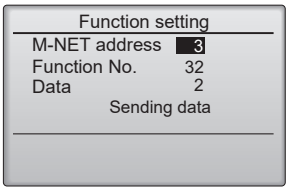


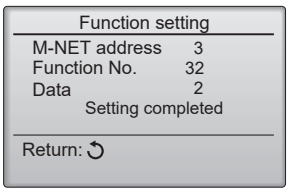
   ▼

   Once the settings have been completed, press the [✓] button.
   A screen will appear indicating that the settings information is being sent.
   To check the current settings of a given unit, enter the setting for its M-NET address and function setting number, select Conf for the Function, and press the [✓] button.
   A screen will appear indicating that the settings are being searched for.
   When the search is done, the current settings will appear.

   ▼

   When the settings information has been sent, a screen will appear indicating its completion.
   To make additional settings, press the [↺] button to return to the screen shown in the above step. Set the function numbers for other indoor units by following the same steps.

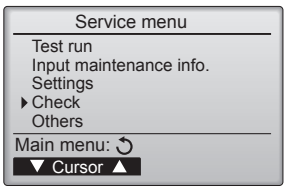




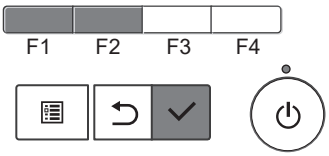
Note:
- Refer to the indoor unit Installation Manual for information about the factory settings of indoor units, function setting numbers, and setting values.
- Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.

9-6. ERROR HISTORY

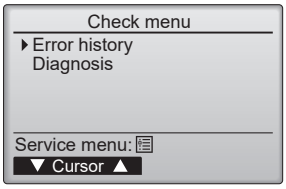
1. Select ″Service″ from the Main menu, and press the [✓] button.



Select ″Check″ with the F1 or F2 button, and press the [✓] button.

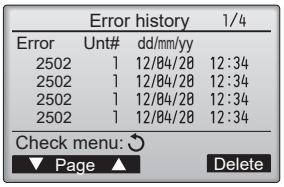


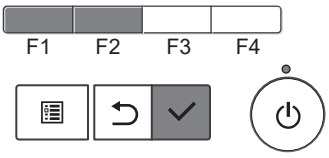
2. Select ″Error history″ with the F1 or F2 button, and press the [✓] button.



3. 16 error history records will appear.

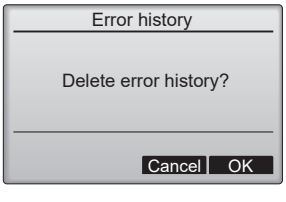
4 records are shown per page, and the top record on the first page indicates the latest error record.



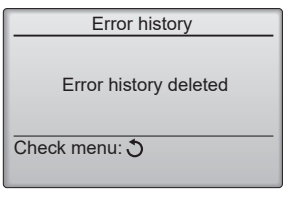


4. Deleting the error history

To delete the error history, press the F4 button (Delete) on the screen that shows error history.
A confirmation screen will appear asking if you want to delete the error history.



Press the F4 button (OK) to delete the history.



″Error history deleted″ will appear on the screen.

Press the [⮌] button to go back to the Check menu screen.

9-7. SELF-DIAGNOSIS

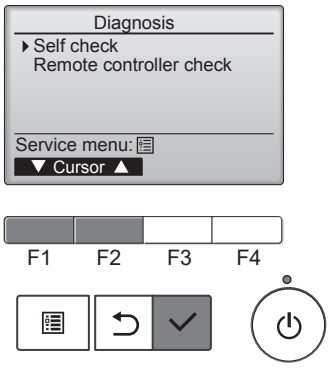
9-7-1. PAR-41MAA

1. Select ″Service″ from the Main menu,
and press the [✓] button.

Select ″Check″ from the Service menu,
and press the [✓] button.

Select ″Diagnosis″ from the Check menu,
and press the [✓] button.

Select ″Self check″ with the F1 or F2 button,
and press the [✓] button.



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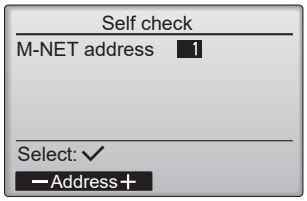
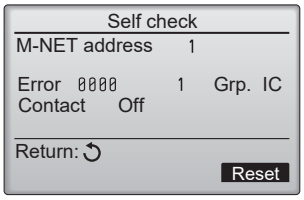
2. Select “Self check” from the Diagnosis menu, and press the [✓] button to view the Self check screen.

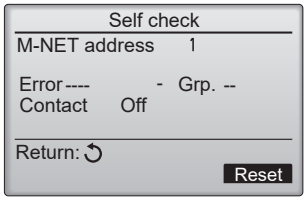
With the F1 or F2 button, enter the M-NET address, and press the [✓] button.

Error code, unit number, attribute, and indoor unit demand signal ON/OFF status at the contact will appear. “-” will appear if no error history is available.



When there is no error history

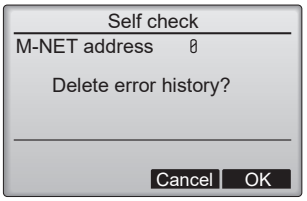


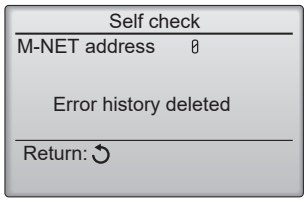


3. Resetting the error history

Press the F4 button (Reset) on the screen that shows the error history. A confirmation screen will appear asking if you want to delete the error history.

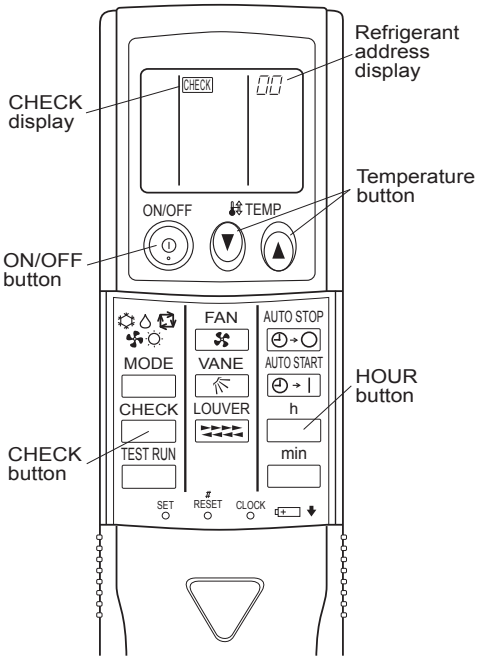
Press the F4 button (OK) to delete the error history. If deletion fails, “Request rejected” will appear, and “Unit not exist” will appear if indoor units that are correspond to the entered address are not found.





9-7-2. PAR-SL94B-E

<Malfunction-diagnosis method at maintenance service>



[Procedure]

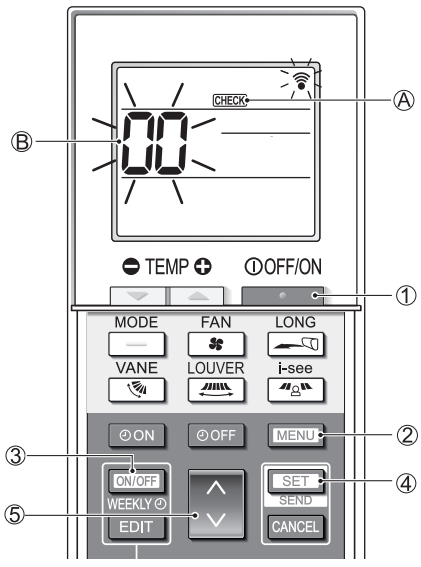
1. Press the CHECK button twice.
   - ″CHECK″ lights, and refrigerant address ″00″ blinks.
   - Check that the remote controller's display has stopped before continuing.

2. Press the TEMP ▼ ▲ buttons to select the refrigerant address of the indoor unit for self-diagnosis.
   - Set the address of the indoor unit that is to be self-diagnosed.

3. Point the remote controller at the sensor on the indoor unit and press the HOUR button.
   - If an air conditioner error occurs, the indoor unit's sensor emits an intermittent buzzer sound, the operation light blinks, and the error code is output.

4. Point the remote controller at the sensor on the indoor unit and press the ON/OFF button.
   - The check mode is cancelled.

9-7-3. PAR-SL101A-E



[Procedure]

1. Press the ▭ button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the ON/OFF WEEKLY button ③ to disable it (WEEKLY is off).

2. Press the MENU button ② for 5 seconds.
   - CHECK Ⓐ comes on and the unit enters the self-check mode.

3. Press the ◇ button ⑤ to select the refrigerant address (M-NET address) Ⓑ of the indoor unit for which you want to perform the self-check.

4. Press the SET button ④.
   - If an error is detected, the check code is indicated by the number of beeps from the indoor unit and the number of blinks of the OPERATION INDICATOR lamp.

5. Press the ▭ button ①.
   - CHECK Ⓐ and the refrigerant address (M-NET address) Ⓑ go off and the self-check is completed.

9-8. REMOTE CONTROLLER CHECK

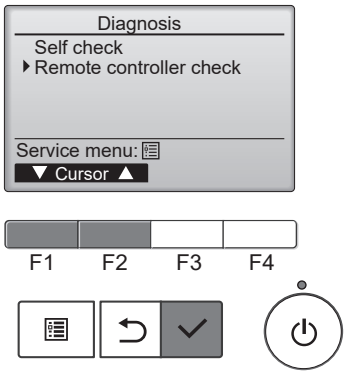
If operations cannot be completed with the remote controller, diagnose the remote controller with this function.

1. Select ″Service″ from the Main menu,
and press the [✓] button.

Select ″Check″ from the Service menu,
and press the [✓] button.

Select ″Diagnosis″ from the Check menu,
and press the [✓] button.

Select ″Remote controller check″ with the F1 or F2 button,
and press the [✓] button.



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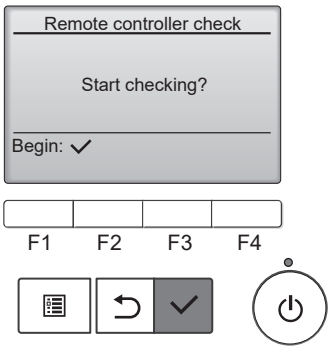
2. Select ″Remote controller check″ from the Diagnosis menu, and press the [✓] button to start the remote controller check and see the check results.

To cancel the remote controller check and exit the ″Remote controller check″ menu screen, press the [☰] or the [⮌] button.

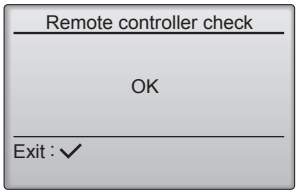
The remote controller will not reboot itself.



3.

OK: No problems are found with the remote controller. Check other parts for problems.
E3, 6832: There is noise on the transmission line, or the indoor unit or another remote controller is faulty. Check the transmission line and the other remote controllers.
NG (ALL0, ALL1): Send-receive circuit fault. The remote controller needs replacing.
ERC: The number of data errors is the discrepancy between the number of bits in the data transmitted from the remote controller and that of the data that was actually transmitted over the transmission line. If data errors are found, check the transmission line for external noise interference.

Remote controller check results screen



If the [✓] button is pressed after the remote controller check results are displayed, remote controller check will end, and the remote controller will automatically reboot itself.

Check the remote controller display and see if anything is displayed (including lines). Nothing will appear on the remote controller display if the correct voltage (8.5–12 VDC) is not supplied to the remote controller. If this is the case, check the remote controller wiring and indoor units.

9-9. SPECIAL FUNCTION OPERATION SETTING

<PAR-U02MEDA>

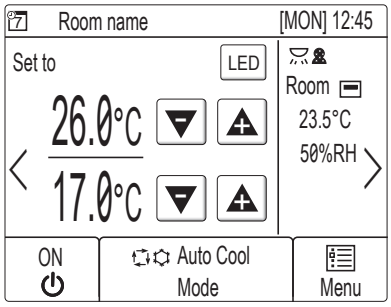
*M-NET remote controller cannot be connected with a refrigerant system which includes branch box.

It is necessary to perform “group settings” and “Interlocked LOSSNAY” at making group settings of different refrigerant systems (multiple outdoor unit).

(A) Group settings: Enter the indoor unit controlled by the remote controller, check the content of entries, and clear entries, etc.

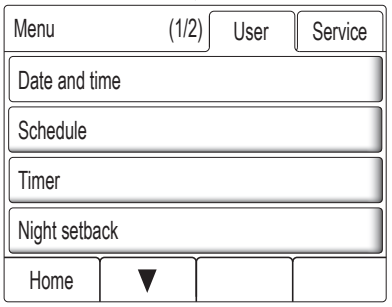
(B) Interlocked LOSSNAY: Used to set the linked operation of a Lossnay unit.

How to display the setup screen



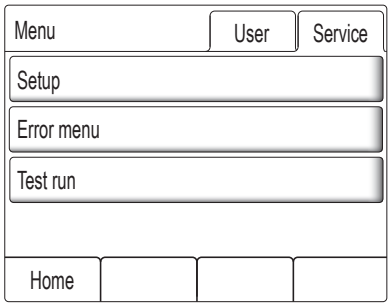
• HOME screen

Touch the [MENU] button.



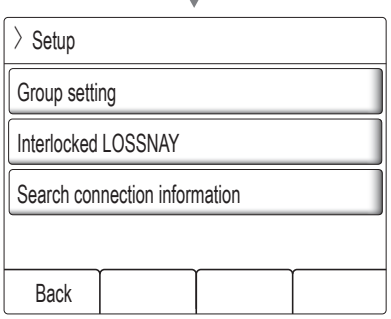
• Menu (User) screen

Touch the [Service] button.



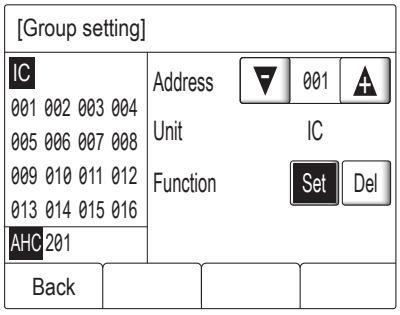
• Menu (Service) screen

Touch the [Setup] button.
Setup screen will appear.



(a) Group setting

Use this screen to register the indoor units and the AHC to be controlled from the controller.

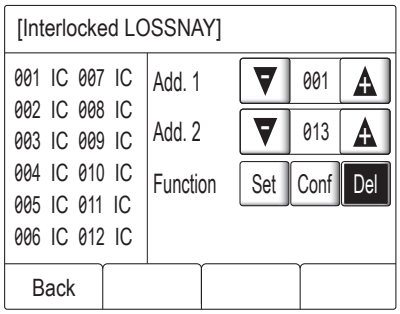


1. Select an indoor unit or an AHC address in the [Address] field.
   The number of units that can be registered.
   Indoor unit: 16 units maximum
   AHC: 1 unit maximum
   * AHC cannot be controlled from the controller
   unless indoor units are registered with the system.

2. Touch the [Set] button to register the address, and [Del] to delete the address.
   • Successful address registration/deletion:
   The registered address(es) will appear on the left side of the screen.
   Deleted address will not appear on the screen.
   • Error:
   "Request denied." or "Is not to be connected" will appear.

(b) Interlocked LOSSNAY

Use this function to interlock the operation of indoor units and LOSSNAY units.



1. To register LOSSNAY units
   Select the indoor unit address in the Add. 1 section.
   Select the interlocked LOSSNAY address in the Add. 2 section.
   Touch the [Set] button to save the setting.

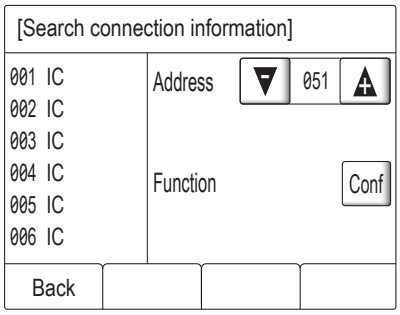
2. To search for an interlocked setting
   Touch the [Conf] button to display in the left column the addresses of the units that are interlocked with the unit whose address was set in the Add. 1 section.

3. To delete the interlock settings
   After taking Step 2 above, select the address to be deleted in the Add. 2 section, and then touch the [Del] button.

When the setting or deletion is successfully completed, “Completed” will appear below [Function] field on the screen.
If setting or deletion fails, “Request denied” will appear below [Function] field on the screen.

(c) Search connection information

Use this screen to specify a unit and search for the controllers that are connected to the unit.



1. Select an address in the [Address] field.

2. Touch the [Conf] button to search for the interlocked units.
   The results will appear in the left column. (When multiple units are found, the addresses that do not fit on the first page will appear on the successive pages.)
   • Search error:
   "Request denied." will appear.

After completing the settings, touch the [Back] button on the [Setup] screen. The message “Collecting the information from the air conditioner.” will appear, and then the screen will jump to the HOME screen. This signals the completion of the setup process. Access the Service Menu from the HOME screen to make the settings for other items as necessary.

CITY MULTI

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